

TRANSFORMATION & ENGAGEMENT



PRACTITIONERS' PERSPECTIVES

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Practitioners' Perspectives

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प्रस्तावना



जनवरी 2010 की सर्द शाम को अमेरिका से आए अपने मित्र और नेनयाग बिजनेस स्कूल सिंगापुर से अपनी नई पारी के लिए शिकागो गए डॉ० कृष्ण ऐरापिल्ली से कुंभ 2010 के आयोजन पर चर्चा कर रहा था। बातों-बातों में मैंने उन्हें बताया कि किस प्रकार हम लोगों ने सबसे बड़े वैश्विक, आध्यात्मिक एवं धार्मिक पर्व कुंभ के सफलतापूर्वक आयोजन हेतु विभिन्न माध्यमों से सभी हितधारकों की भावनाओं को समाहित करते हुए विभिन्न रणनीतियों का सृजन और क्रियान्वयन सुनिश्चित किया तो उन्होंने कहा प्रबंधन की भाषा में हम इसे मुक्त नवाचार यानि ओपन इनोवेशन की संज्ञा दे सकते हैं।

उस दिन पहली बार मेरा इस शब्द से साक्षात्कार हुआ। मैं कभी भी प्रबंधन का छात्र नहीं रहा इसलिए तकनीकी शब्दावली से दूर हूँ। कई बार ऐसा होता है कि आप काफी कुछ स्वतः कर रहे होते हैं पर वैज्ञानिक, तकनीकी या फिर प्रबंधकीय दृष्टि से कौन-सा सिद्धांत, कौन-सी परिभाषा में समाहित होगा आपको पता नहीं रहता। उत्तराखण्ड में हम कुम्भ की तैयारियाँ कर रहे थे। संयोग से अमेरिका के राष्ट्रपति अपनी ओपन गर्वमेंट इनिशिएटिव के लिए सम्पूर्ण विश्व की प्रशंसा बटोर रहे थे। अमेरिकी प्रशासन ने सार्वजनिक सेवाओं की नवाचार गुणवत्ता बनाने हेतु सभी हितधारकों के साथ व्यापक विमर्श की प्रक्रिया शुरू की। सरकार के इन प्रयासों को न केवल सराहना मिली बल्कि अमेरिकी नेतृत्व की लोकप्रियता भी बढ़ी। सार्वजनिक जीवन में रहने के कारण मैंने इस बात को महसूस किया कि अभी भी हमारे बहुत से विद्यार्थी यहाँ तक कि अध्यापक और शैक्षिक जगत से जुड़े अन्य लोग नवाचार और आविष्कार के अंतर तक को पूरी तरह नहीं समझ पाए। शिक्षण में नवाचार युक्त वातावरण बनाने की शुरुआत हमें यहीं से करनी होगी। जिस दिन हम नवाचार का वृक्ष अपने शैक्षिक जगत में रोपित कर पाएँगे उसी दिन से परिवर्तन दिखने लगेगा। मेरा हमेशा से यह मानना रहा है कि गुणवत्तापरक और नवाचार

युक्त शिक्षा भारत को वैश्विक महाशाक्ते के रूप में प्रक्षेपित करने की क्षमता रखती है। देश में शैक्षिक उन्नयन में सबसे बड़ी जिम्मेदारी हमारे शिक्षकों की है। अध्यापक के रूप में, मैं यह महसूस करता हूँ कि अध्यापक के समक्ष सबसे बड़ी चुनौती बच्चों को सीखने के लिए न केवल उत्साहित करना है बल्कि परिणाम आधारित अध्ययन के लिए एक उपयुक्त वातावरण तैयार करना है। एक ऐसा वातावरण जो बच्चों को प्रश्न पूछने के लिए उत्साहित करता हो, जो उन्हें त्रुटियों से सीखने का अवसर देता हो और जो उन्हें जोखिम उठाने के लिए प्रेरित करता हो। इन सब के लिए एक समर्पित दूरदर्शिता वाले दृष्टिकोण की आवश्यकता है। इसके अभाव में नवाचार मात्र एक शब्द बन कर रह जाएगा और हम शैक्षणिक जीवन में कई महत्वपूर्ण उपलब्धियों से रहित हो जाएंगे। प्रश्न यह उठता है कि वर्तमान तंत्र से पृथक हटकर हमें नवाचार परक विचारों की क्या आवश्यकता है और इसका उपयोग किस प्रकार किया जाए?

इस बात में कोई संशय नहीं है कि अध्यापक शैक्षिक व्यवस्था का स्तंभ है और विद्यार्थियों की अपेक्षाओं को अध्यापक से ज्यादा कोई नहीं समझ सकता है। विद्यार्थियों के मन-मस्तिष्क को पढ़ने, समझने का कौशल केवल हमारे अध्यापकों में है।

सभी शिक्षकों में नवाचार की संभावनाएँ मौजूद होती हैं, लेकिन औसत शिक्षक यह मानकर चलता है कि उसका काम पाठ्यक्रम पढ़ा देना और बच्चों को परीक्षा के लिए तैयार करना है। बच्चे की उत्सुकता का विकास करना शिक्षक की क्षमता को प्रदर्शित करता है। स्कूल में ऐसी परिस्थितियाँ विकसित करने की आवश्यकता है जहाँ बच्चे और अध्यापक अपनी जिम्मेदारी को बखूबी निभा सकें। जॉन डी. रॉकफेलर ने कहा है कि अच्छा प्रबंधन यह दिखाता है कि औसत लोगों से श्रेष्ठ लोगों का काम कैसे लिया जाए। हमें नवाचार के माध्यम से ऐसी प्रक्रिया का विकास करना है जिससे हर विद्यार्थी, हर अध्यापक अपना सर्वश्रेष्ठ दे सके।

हमें यह देखना है कि क्या हम आमतौर पर बच्चों की स्वाभाविक क्रियाएँ देखकर उन्हें समझने की कितनी कोशिश करते हैं? क्या यह देखने की कोशिश करते हैं कि बच्चे अपनी गतिविधियों से क्या सीख रहे हैं, यदि हम यह देख पाए तो निश्चय ही आनंददायी और रुचिकर शिक्षा दे सकते हैं। नवाचार अपने काम के प्रति रचनात्मक, जिम्मेवार, ठोस व व्यावहारिक दृष्टिकोण अपनाने का एक तरीका है। अधिकांश शिक्षकों द्वारा इस्तेमाल की जाने वाली शिक्षण पद्धतियों में विद्यार्थियों के लिए कोई चुनौती नहीं होती। ऐसे सवाल, ऐसे शोध व खोज नवाचार के माध्यम से ढूँढने की आवश्यकता है।

अधिकतम कक्षाओं में पठन-पाठन का अर्थ है जानकारी का हस्तांतरण न कि प्रयोग, अनुसंधान या अवलोकन। यद्यपि शिक्षकों के पास उनके जीवंत अनुभव होते

हैं जिन्हें यदि वे चाहें तो शैक्षिक चिंतन में प्रयोग कर शिक्षा को रुचिकर और सरस बना सकते हैं।

चाहे विज्ञान हो गणित हो या फिर व्याकरण, सभी में, बुनियादी नियम और सिद्धांत सिखाने पर जोर होना चाहिए। यह जरूरी नहीं कि बच्चे शुरू में ही सब समझ जाए, ऐसे अवसरों पर नवाचारों की जरूरत है, जिनमें सवाल हल करने के लिए दबाव और डर के बिना स्वाभाविक तौर पर सीखने के मौके हों। कक्षा में ऐसी गतिविधियाँ हों जिनसे बच्चों को रोचकता का एहसास हो, जिनमें कुछ सोचना, समझना और समझाना पड़े। आधुनिक शिक्षण में प्रयोग और प्रत्यक्ष, व्यावहारिक अनुभव अधिक उपयोगी और स्थाई होते हैं। इन अनुभवों का विविध परिस्थितियों में स्थानांतरण भी किया जा सकता है।

हमारे अध्यापकों को समझना होगा कि विकास और सुधार की कोई सीमा नहीं होती इसलिए शिक्षक को मालूम होना चाहिए कि नवाचार एक सीढ़ी होती है, जिस पर चढ़कर आगे के रास्ते खुद-ब-खुद मिलते हैं।

एक बात और ध्यान देने योग्य है कि नवाचार अधपके न हों, नवाचार सैद्धांतिक अध्ययन से उभरे हों, जो व्यवहार में प्रचलित परम्पराओं से भी जुड़े हो सकें और जिनके द्वारा पढ़ाने के तरीकों में विविधता लाई जा सके।

यह स्पष्ट है कि नवाचार से पुनरुत्थान तभी संभव है जब उसे अध्ययन, प्रयोग, लेखन, सृजन आदि में आत्मीय रूप से जोड़ा जाए। उसके लिए अकादमिक अवसर दिए जाएं एवं प्रारम्भिक स्तर पर प्रोत्साहन दिया जाये। यदि शिक्षा का अर्थ बालक का सर्वांगीण विकास है, तो शिक्षक के प्रत्येक नवाचार में बच्चे की सहभागिता आवश्यक है। यह भी जरूरी है कि शिक्षक अपने आचरण व चरित्र में ऐसा परिवर्तन लाए जिससे वह अपने पद को वेतन भोगी पद नहीं बल्कि स्वयं को साधना और सृजन से जोड़ दे।

बच्चों की अल्पकालिक एवं दीर्घकालिक समस्याओं को हल करने की कुंजी अध्यापकों के पास है। अध्यापकों से मेरा आशय उस सम्पूर्ण तंत्र से है जिसमें हमारे उत्साही अध्यापक, प्राचार्य एवं प्रशासनकर्मी शैक्षिक जगत में सकारात्मक भूमिका निभाते हैं। सबके बीच मुक्त नवाचार, आंतरिक और बाहरी विचारों को साथ जोड़कर प्रौद्योगिकी का विकास करना ओपेन इनोवेशन कहलाता है। परंतु अभी हम सहयोग के लाभ को पूरी तरह से समझ नहीं पाए हैं।

कुछ इसी तरह हमने मुक्त नवाचार का एक अत्यंत सफल प्रयोग किया। औराबिंदों आश्रम के साथ हमने संपूर्ण देश में एक मुक्त नवाचार से प्रेरित वृहद् अभियान किया जिसमें हमने 17 लाख अध्यापकों को नवाचार के लिए प्रेरित किया। हमें उनके 8.5 लाख सुझाव प्राप्त हुए। इनमें से सात लाख सुझावों को हमने क्रियान्वित किया। सबसे अच्छी बात यह हुई कि मुक्त नवाचार को अपनी शिक्षा

प्रक्रिया का महत्वपूर्ण अंग मान कर यह सब लोग अत्यंत आत्मविश्वास के साथ अपने कर्तव्यों का उत्कृष्ट पालन कर रहे हैं।

अभी कुछ दिन पूर्व मुझे नंदन निलेकनी से मिलने का मौका मिला। मुझे लगता है उनके द्वारा दिया गया लेवल प्लेयिंग फील्ड का विचार आज के परिपेक्ष्य में अत्यंत आवश्यक है। विशेषकर भारत जैसे देश के लिए, जहाँ हम विश्व की 18 प्रतिशत मानवता के जीवन में सामाजिक, आर्थिक क्रांति लाना चाहते हैं, जहाँ हम ज्ञान आधारित समाज की कल्पना करते हैं, जहाँ हम विज्ञान और प्रौद्योगिकी के शीर्ष पर भी पहुँचना चाहते हैं साथ ही अपने मूल्यों की रक्षा करना चाहते हैं। साथ ही हम आज जनसांख्यिकी लाभांश की बात भी करते हैं पर ये सब शोधपरक नवाचार युक्त वातावरण में ही संभव होगा। हमारे समक्ष यह बड़ी चुनौती होगी कि हम अपने युवावर्ग को एक सार्थक दिशा की तरफ प्रेरित कर सकें।

वैश्विकता के इस दौर में हमें थिंक ग्लोबली एक्ट लोकली के विचार को आगे बढ़ाते हुए अंतरराष्ट्रीय प्रतिस्पर्धा से मुकाबला करना है। हमें सहयोग का एक ऐसा सक्षम तंत्र स्थापित करना है जो विविधता से परिपूर्ण हो, सृजनात्मकता को बढ़ावा देता हो और परस्पर मेल जोल से एक दूसरे के उत्थान के लिए संकल्पित हो। प्रौद्योगिकी ने हमारी दुनिया को छोटा और तेज बना दिया है। आज बड़े पैमाने पर सूचना क्रांति के प्रभाव देखे जा रहे हैं। शिक्षा से जुड़े संस्थानों के लिए चुनौती यह है कि वह प्रौद्योगिकी का सदुपयोग सुनिश्चित करें।

चाहे वह एक नया विचार हो, एक नया उत्पाद हो या एक नई प्रक्रिया हो, नवप्रवर्तन कई रूप ले सकता है और किसी भी संस्था के विकास एवं वृद्धि के लिए एक महत्वपूर्ण ईंधन है। कहा गया है कि सतत नवाचार की प्रक्रिया बनाये रखना कठिन है। इसकी तुलना उस विमान से की गई है जिसे उड़ान में रखना है और इसके पंख और पहियों को उन्नत किया जा रहा है। एक शैक्षणिक संस्थान को नवाचार, अनुसंधान और विकास को अंजाम देना मुश्किल हो सकता है जब वह अपनी रोजमर्रा की जिंदगी में व्यस्त हो। यहाँ पर मैं कहना चाहता हूँ कि नवाचार करने के लिए केवल अपनी ही ताकत और संसाधनों पर निर्भर रहने के बजाय, संगठनों को सफलता के लिए बाहरी सहयोगियों के साथ साझेदारी करने की आवश्यकता है। खुले नवाचार (ओ आई) का अभ्यास करना अत्यंत आवश्यक है। हेनरी चेसब्रो, जिन्होंने 2003 में ओ आई शब्द गढ़ा था, इसे संक्षिप्त रूप से परिभाषित किया था-आंतरिक नवाचार में तेजी लाने के लिए उद्देश्यपूर्ण प्रवाह और ज्ञान के बहिर्वाह का उपयोग और क्रमशः नवाचार के बाहरी उपयोग के लिए बाजारों का विस्तार।

विद्यार्थियों की बदलती माँगों के साथ-साथ, आस-पास के क्षेत्रों में उभरते नवाचारों से तालमेल न केवल प्रासंगिक बने रहने की संभावनाओं को बढ़ाते हैं, बल्कि संसाधनों के समुचित उपयोग की राह प्रशस्त करते हैं। भारत को महाशक्ति

के रूप में विकसित करने में नवाचार की महत्वपूर्ण भूमिका होगी और नवाचार को जन-जन तक ले जाने की महत्वपूर्ण भूमिका हमारे शिक्षकों की है। जितनी जल्दी हम यह नवाचार रुपी मंत्र समझ पाएँ, उतनी जल्दी हम शैक्षिक उत्कृष्टता को प्राप्त कर सकते हैं।

रमेश पोखरियाल 'निशंक'
मंत्री

मानव संसाधन विकास, भारत सरकार

Preface

It gives me immense pleasure and pride to celebrate the completion of 90 years journey of providing quality education, progressive curricular and assessment reforms, innovative pedagogies, and setting of standards by the Central Board of Secondary Education, a path breaking and torch bearing institution that has transformed the lives of millions of children in the country and across the world, and has inimitably witnessed rapid growth and expansion.

It is indeed a privilege to have the first book of essays and documentation of best practices, crowdsourced from our Principals and Teachers, published during my tenure as Chairperson of the Board.

The current and future world needs adults who can thrive in the 21st century, become engaged and empowered citizens, both locally and globally, be adaptive and pro-active - socially, economically and environmentally, and at the same time act and contribute responsibly. They must have the ability to accept change, understand traditional knowledge and skills and be aware of the interdependence and interconnections of life. In the last few years, the CBSE has strived to develop and implement a variety of learning ecosystems where our children seamlessly transform into such individuals in their adult life. As a Board, we see our role as a community that meets the present and future challenges with full capability, bridges the gap between the real and the ideal and enables systems, environments and policies for a humane future.

Many of the case studies/documentations in this book echo the Board's vision for the future, while many others lay down an unequivocal set of options for other schools and learning systems to replicate for ensuring a better quality of education. The unique perspectives and extensive areas of expertise of leading Principals

of the country and award winning teachers that are reflected in the views, ideas and thoughts in this book will take you into a journey of possibilities, and that is what the CBSE is all about - a Board that shows the way and builds the roads to newer and futuristic domains in school education.

I would like to thank senior members of the National Progressive Schools Conference (N.P.S.C) for having partnered with the C.B.S.E. in this creative and aspirational endeavour. I would like to place on record the good work done by the team under the leadership of Dr. Ameeta Mulla Wattal, Prinicpal, Springdales School, Pusa Road, New Delhi. I sincerely hope that this book proves to be a tool for learning, experimenting and replicating new ideas that will motivate and inspire educators to rethink and reengineer pedagogy and classroom transaction, making them more learner centric, learner led and learner owned.

As for the CBSE, I have no doubt in my mind that it will continue to grow from strength to strength and to be the harbinger of positive change in the Indian school education ecosystem for many more decades to come, perhaps centuries!

Best wishes.

Anita Karwal, IAS
Chairperson, CBSE

Acknowledgements

It is indeed an honour to be a part of the book of essays to be published for the 90th anniversary of the Central Board of Secondary Education and the silver jubilee of the Sahodaya.

I would like to begin by expressing my deepest appreciation for the vision of the Chairperson, C.B.S.E., Ms. Anita Karwal, I.A.S. for her continuous engagement and support in being instrumental in shepherding the process of editing the book through all its phases.

A special word of thanks to Dr. Joseph Emmanuel, Director, Academics, C.B.S.E. for his guidance and Dr. Biswajit Saha, Director, Skills education and Training, C.B.S.E. for his ideas and wise council.

My gratitude for the founder members and Chairpersons of the National Progressive Schools Conference (N.P.S.C.) under whose guidance and leadership innumerable collaborative initiatives and reforms with the Central Board of Secondary Education have taken place, over the years.

To the Editorial team without whose support and valuable suggestions the book of essays Transformation and engagement, practitioners' perspectives would not have been possible.

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May the Central Board of Secondary Education and the National Progressive Schools Conference continue to work together for a shared vision that builds communities of life long practices, collective action and continuous learning.

EDITOR

Dr. Ameeta Mulla Wattal

Former Chairperson, National Progressive Schools Conference

Principal, Springdales School, Pusa Road

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Introduction

When members of the National Progressive Schools Conference (N.P.S.C.) shared with Ms. Anita Karwal, Chairperson, Central Board of Secondary Education (C.B.S.E.) that 90 years of the presence of a National Board and 25 years of the Sahodayas' warranted a book, the idea was immediately taken up with a lot of enthusiasm and interest which led to this book of essays.

Leading educators from across the country contributed in its making. The wide range of essays and case studies, though varying in length, style and content, all voice the ethos and philosophy of the Central Board of Secondary Education which is an inclusive, global, holistic and a child-centred board that celebrates the magic of learning.

This leads me to reflect on the prevailing school system:

I spend most of my waking hours in schools of the present that are working to recalibrate themselves into quality schools of the future. Across those experiences, I've observed some larger patterns:

The contours of global citizenship are shifting.

The barrier between man and machine is shrinking.

And the time it will take to undo the human damage to the natural world is running out.

Amidst so many uncertainties, what is the future path we must traverse? What will our students need to know, believe and in order to add value to such a rapidly changing world? Will our government financially support schools and have the professional courage to shift their practices in order to better support the personal growth of each new generation of young people?

We need to prepare children for classrooms that are (VUCA) volatile, uncertain, complex and ambiguous.

LEARNING CRISIS

We are facing a global learning crisis. I call it learning crisis and not an education crisis, because on top of the quarter of a billion children who are out of school today, even more, 330 million children, are in school but failing to learn. And if we do nothing, nothing changes, by 2030, just 11 years from now, half of the world's children and youth, half of 1.6 billion children and youth, will be either out of school or failing to learn.'

This is the crux of our challenge and I believe we won't succeed until we retire the two dominant educational metaphors of the past one hundred years: the assembly line and the tabula rasa. At best, they no longer serve us.

For more than a century, we have unconsciously accepted an endless stream of assumptions about what school requires:

SUBJECTS AND DEPARTMENTS

Fixed curricula

Marks

Home work

Time Tables

All of these structures have presupposed a fixed path for young people to follow.

The landscape is shifting—away from the notion of a singular path, and towards a much more elastic understanding of how each child can grow and add value to the world. We need to move towards personalize learning, something which is more emergent, inextricable, alive and caters to individual needs that cannot be tested through board exams.

The definition of quality has to be constantly revised. Schools are larger ecologies that are human and cultural.

DIGITAL FUTURES

Are disruptive technologies the answer to rethinking school learning?

Technology is rewinding our process of evolution - one can see a reduction of the attention span and decision making skills among students.

Big data, holograms, smart clouds, hand held mobiles are the low hanging fruits of technology.

In fact, in this era of information access, smart clouds, and worsening socioeconomic disparity, we may want to consider whether we should be teaching content at all, or rather teaching students to think, design their own learning pathways, and create and do extraordinary things that are valuable to them in their place?

We are looking at education 4.0 that talks about global connectivity, smart machines, aligning of people with technology, open sourced content to a globally connected humanity.

CLASSROOM OF TODAY

Much of the energy that drives the global economy in the 21st Century will be brain power generated in the classroom. Wherever we live and whatever we do, we have a personal stake in quality education. Without a highly skilled workforce, no community can prosper, and no industry can grow and thrive.

Is the learning that we need essentially different to the education that we currently receive?

Today, the end goal of schooling is to acquire a certain amount of content knowledge. The future will need a set of competencies and literacies along with attitudes that will guide children through life.

So, the emphasis in classroom teaching should be more on construction than completion, more on being actively present in the real world than representing it, where open ended enquiry and discovery become the main stream of learning.

The classroom has to be the canvas. The canvas can have opportunities where the rigour for research is inculcated through

portfolios, projects, adaptive learning and reflective practices that bring out the potential learning in a child.

Today's learning systems call for partnerships and alliances; a move from self-centred existence to co-existence; from confrontation to interaction; from alienation to collaboration. To achieve meaningful education, we must enable our children to live together in mutual empowerment.

If we can create a common humanity in our school communities, it will go a long way in creating collaborative thinking beings.

EDITOR

Dr. Ameeta Mulla Wattal

Principal, Springdales School, Pusa Road, New Delhi
Former Chairperson, National Progressive Schools Conference

An Appeal

“Do not confine your children to your own learning, for they were born in another time.”

—Rabindranath Tagore

The Millennial : An Open Letter

SUPRABHA MENON & KASHMIRA JAISWAL

Thank you for holding my hand through this exciting journey of discovering, exploring, learning and unlearning, called my student years! Along with my parents, I regard your presence in my life as that of utmost importance, because there are so many crossroads in my life when I become clueless about my choices... my decisions... my conduct... and the impact of my conduct at different junctures.

This open letter is for you to get a better idea of my aspirations and needs as a 21st Century Learner; for you to help me discover my potentials and meet the challenges that I face in this millennium, for I am the millennium child, Ain't I? I feel the need to reach out to you now, when you all sit and deliberate about the best course of action regarding my betterment and progress.

Let me begin by stating my goals.

Global Understanding Goals

I feel the urge to engage with global issues more in the present times, than ever before, because the world is now ensconced in my 'device' and throbbing at my fingertips. If I am not oriented towards engagement, collaboration and connection with individuals from diverse cultures and ideologies across the globe, then how will I develop mutual respect and tolerance for their diversity? How will I ever engage with Global issues if you do not encourage and channelize me with such activities in school, where I spend a chunk of my productive time?

I talk on behalf of the urban student, who may engage with Foreign Universities for higher Education, who may pursue unusual careers and may be placed anywhere on the World Map. Who would provide the pertinent competency to such students, if not the school? Who would orient the student regarding professional ethics,

respecting cultural differences, ability to collaborate and co-operate, if not the School?

Civic and Social Leadership Goals

I simply admire those noteworthy adults in my life who stand up to the cause of National Security like the defence personnel, who have this burning passion and protective instinct for the country. I salute those good Samaritans who care for the Natural Environment, Flora and Fauna, and go out of the way to protect it from harm. I wish to be more involved in the civic decision-making, I feel the need to stay informed, understand the government processes and participate in civic life, rather than just read about it in the books for most of the time.

Fiscal Goals

It is required of me to pick up a certain amount of financial Literacy in my School tenure, and I feel a lacuna in this area in most of my counterparts in the country. I would love to make 'informed economic decisions'. With the Prime-minister's Drive of Cashless Economy in India, I need to better understand the use of credit cards, and e-payments wisely; I need to gain Financial Competency.

Environmental Literacy Goals

I wish to move beyond making Chart-Paper presentations, delivering speeches and staging street plays, as I want to understand and engage myself with the grass root environmental issues. I would love it if I was guided to actually pick up tools in my hand and reforest a small patch of land, or take charge of cleanliness of my surroundings, nurturing my environment and ecosystem like a soldier. I do imbibe and learn from examples set by my elders, so please be warned that you have eyeballs following your conduct towards cleanliness and environment.

Digital Competency Goals

I cannot be more elaborate and eloquent on how drowned I am in the world of devices like Smartphones, Laptops, Notebooks, iPad, Digital Cameras; how overwhelmed I feel surrounded by the sphere

of internet - information overload, visual imagery, voice, video and printed digital data streaming continuously in my world and space. I need to be guided to use all of this to my best advantage. I need what you intellectuals term as 'Digital and Visual literacy', to learn how to decipher and interpret image rich curriculum meaningfully and quickly, to deal with visual imagery and to communicate ideas effectively through this medium.

I need to acquire Information Literacy Skills, to be able to recognize when information is needed, the ability to locate, access, evaluate and use it effectively, efficiently, ethically and legally. Sometimes I go into a tizzy with the humongous amount of volume of information available, the abundant choices that I need to make, and at times, I am so confused about the authenticity of information too. I wish that school could teach us how to seek and use information, and how to synthesize and evaluate it.

Media and Technical Skills Goals

I am surrounded 24/7 by social media and I love to indulge in blogging, social networking etc. You as educators have often shared the woes that we as students need to appropriately access, understand and analyse media messages as media influences beliefs and behaviours.

Dear educators, here I wish to disband a general perception that I am hooked and wired to the social media for all the wrong purposes! Please understand that I am not involved in the recreational uses of this medium at all times. So many times, I am also involved in accessing useful digital content, collaborating with my group-mates, solving conceptual doubts and creating conversations that are meaningful for my peer group. I admire some of my teachers who understand this need and participate actively on such social media platforms by creating content as well as sharing information to facilitate learning for us.

Contextual and Real-World Learning Goals through Games, Projects and Problem Based Tasks

Agreed, that video games are the biggest attraction for teenagers today and the gaming culture rivals classroom teaching for capturing attention of students like me, across the world. But, if I may use the lingo that your fraternity is so obsessed with, that is to promote the 'Cognitive, Social, and Emotional Development' of the student, what better way than to teach me through Game-based, Problem based and Project based Approach?

Well-designed Games are engaging, and create new challenges that allow me to be a risk-taker, and encourage me to immerse in the complex and information rich dynamic fields. It is here, in the 'Gaming World' that I am stimulated to sense, infer, decide and act quickly.

I feel so stimulated when you throw a challenge towards me; I feel so compelled to find a solution to the problem that is directed towards me as a task. I feel elated to do the assignment that is 'a hands-on task', as it gives me a 360 degrees understanding of the project at hand.

Creativity and Innovation Goals

I would like to explode the delusion here that the term creativity should only be used for the artistic and genius type geeks only! On the contrary, each one of us is inherently capable of thinking differently, and can lend a varied perspective to the same concept, thereby easily innovating a product, design or a process. I respect those educators who provide me with a nurturing learning environment, are open to my ideas, and allow me to learn from my mistakes and failures. I miss those educators, who can adapt to rapid shifts, who harbour a culture of innovation, who are informed by data, research, who are creative and apply critical thinking themselves.

Validation Goals

Dear Educators, you cannot teach a 21st Century student with obsolete expertise. Similarly, I strongly feel that the same yardstick cannot be applied to evaluate the efforts of our fraternity that was used in the 20th century. I am the Millennium Child, with different

abilities, aspirations, skill-sets, challenges, learning and career goals. The 21st Century Assessment Instruments should measure problem-solving, decision-making, communication, technology-operations, creativity, besides concept clarity and comprehension.

I would appreciate if your tests moved beyond the current patterns, and supported creativity. You could ask me to design my blog, design my web-portfolio, and use my technology skills to present my academic proficiency.

Lastly my dear Educators, I wish to reiterate that you are the most important and significant individual in my life, whose presence keeps me grounded to my social roots. You are the human connect, that pulls me back to the real world and directs my course like a beacon of light through the labyrinth of the virtual world. Please keep holding on to my kite-string, for I may fly away to oblivion, were it not for your skilful guidance and adept manoeuvre that enables me to reach desired heights.

Lovingly Yours

A 21st Century Student

Health and Well Being in Education

“Our greatness lies not so much in being able to remake the world as being able to remake ourselves.”

—Mahatma Gandhi

Inclusive Classroom : Mindful Learning

ANINDITA MUKHERJEE

To understand how to create an inclusive classroom in a school, first, we have to understand the fundamental concepts of education, inclusion and how to achieve it through the process of mindfulness and implement them with success.

In India, every child between the age of 6 to 14 years, has the right to free and compulsory education. India became one of 135 countries to make education a fundamental right, and like any other child, children with any physical or intellectual disability too, have the right to receive the free and fundamental education in a normal functioning school.

‘Inclusion is a right, not a privilege for a select few.’ Inclusive Education, helps to widen our knowledge and absorb the truth about life. It is about embracing all, making a commitment to do whatever it takes to provide each student in the community, and each citizen in a nation; an inalienable right to belong, not to be excluded. With this vision, the Government of our country has implemented five important rights catering to the need to set up an inclusive structure in schools:

- Education for All Handicapped Children Act, 1975.
- Individuals with Disabilities Education Act, 1990.
- No Child Left Behind, Elementary and Secondary Education Act.
- The Rehabilitation Act of 1973.
- Individual Education Programs for the students with disabilities and post-secondary school.

The aim of Inclusive Education is to work on the diverse needs of children by identifying and breaking barriers to find a solution as education is a basic human right for every child.

In an inclusive classroom, a teacher must be well trained and equipped to address the interests, needs and possibilities of all its members that would democratically support and empower all its participants. It is an approach that addresses the needs of students with a variety of backgrounds, learning modalities and abilities.

The Central Board of Secondary Education also ensures the setting up of an inclusive structure in all the public and private schools it governs. The board took up this initiative in the year 2008, and is still implementing the same in various schools till date. Several benefits are given to the children having disabilities in the categories defined in the Persons with Disabilities Act, 1995. The board also provides examination concessions and alterations in the syllabus and teaching methodology for students with disabilities. The board also advises the schools with an inclusive educational set up to ensure regular in-service training of teachers in inclusive education at the elementary and secondary level. The schools may also appoint a special educator for the proper training of the children with disabilities.

As per the Salamanca Statement framed by the UNESCO on the needs of rights-based education, in the year 1994, the inclusion policy is intrinsically linked to and mutually supportive of inclusive curriculum in a school. While addressing the teaching methodologies of inclusive education, we have to refer to the 'hows' of the teaching methods and ensure that the methods used are flexible, learner-centered and inclusive of diverse needs.

According to the Persons with Disabilities Act, 1995, a child may have one or more of the following disabilities:

Blindness, Low vision, Leprosy-cured, Hearing impairment, Locomotor disability, Mental retardation and Mental illness. The act also provides for the rehabilitation of these children that aims to reach and maintain their optimal physical, sensory, intellectual, psychiatric or other socio-functional levels. The act also provides for a 'Special Employment Exchange' that refers to any office or place maintained by the Government to serve the needs of the persons who seek to

engage employees from amongst the persons suffering from disabilities or persons with disability who seek employment.

A school with an inclusive set up, ensures the proper grooming of the children with one or more of the above-mentioned disabilities. The schools aim to identify these disabilities through observation and then provide education and other required facilities to them in the least restrictive environment. The teaching methodologies should also be inclusive in itself, or inclusive education will not be possible in the classroom realities. Thus, the schools should ensure that the teachers are given opportunities to engage in research and also that they receive proper, ongoing support to learn and develop specific skills required to make their teaching more inclusive and impactful.

As inclusive education is a social model based on disabilities, the teaching methodologies are challenging to enact. It needs continuous practice and support to ensure that the concept of inclusion is understood, used widely and sensitively to make it effective. So, the primary task of the teacher is to have ice breakers to connect with students, develop a classroom climate and establish ground rules for respectful interaction in the classroom. A teacher must be able to facilitate mixed ability group to work in a classroom in which students with different abilities and from various backgrounds work together to support each other. This encourages and develops actual learning and also helps to demonstrate the potentials of the children with special needs. The inclusive education system must also be in support of the inclusive curriculum. The teachers must engage in interactive methods of teaching - learning procedures and also ensure good quality supervision and support from the parents. They should avoid the overuse of methods that are inappropriate for many learners. The teachers should also engage in reflective teaching practices to enhance the inclusive climate inside a classroom.

The teachers or the special educators must prepare for the personalized training or developing Individual Educational Programs for the identified students with disabilities. They should look for and investigate any obstruction or challenges they might face in the way.

They should first investigate the diversities in their own classrooms in order to create an overall inclusive classroom. If the teachers are unable to analyse a situation, they will not be able to remove the barriers and struggle to fit a learner into a flawed system, instead of working to change the system to fit the learner. Thus, the overall approach towards developing an inclusive system should be as follows:

- Observing and identifying the needs of the children with disabilities
- Investigating and identifying the existing barriers
- Strategizing solutions to remove those barriers
- Working together to change the system accordingly
- Preparing for the training and Individual Educational Programs for the children with disabilities

The teachers and special educators should work together to remove the biased attitudes against children with disabilities. They should also try to create an awareness to change the belief that slow learners are not worth wasting time on and they should also promote the belief that all children are able to learn. The teachers should also take an initiative to aware and support the families of these children to understand the value of education. A teacher's role should be thus, to create an inclusive climate with varying individuals in a group to work together using fun, interactive, participatory and learner led activities such as painting, singing, role-play etc. The seating arrangements should also be flexible to promote interaction and active engagement for everyone in a class. Corporal punishment should be avoided and multilingual teaching methods must be practised. The teachers should thus be proactive in working with children with disabilities.

Apart from providing quality education in an inclusive classroom, the schools must also focus on developing an inclusive infrastructure to provide the right physical settings for the children with disabilities. All the available resources must be accessible for each and every student in a school as the key requirement for an inclusive education system is a barrier free environment. Also, the schools must be well prepared for what comes next. The schools must provide for all

weather roads, the school building must have all time running water facilities, separate washrooms for girls and boys, functional drinking water facility, ramp facility, accessible washrooms for the physically disabled, separate music rooms for therapies, computer labs, separate activity rooms and conditioned classrooms with optimal arrangements for the visually impaired, special parking places for wheelchairs, visual alarms, enlarged doorways and hallways. The schools should provide a learning friendly environment and facilitate training programs for both teachers and parents.

The teachers should follow different teaching strategies for children with different disabilities. For the children with visual impairment, the teachers should provide tactile learning experiences, give oral instructions and also verbally explain any visuals. For the children with hearing impairment, the teachers should use assistive technology and sign language to instruct in a classroom. They should also try to enhance a student's speech reading conditions. For the children with intellectual disability, like autism, ADHD etc, the teachers should provide concrete aids like drawings, diagrams, mathematical tools and other digital objects for the completion of the assigned tasks to the students. They should break the total workload into small, manageable units to make it easier for the students. For the children with any physical disability, like cerebral palsy, epilepsy, Tourette syndrome etc, the school must ensure the availability of the above-mentioned infrastructural facilities. Apart from these, the schools must also provide an Occupational Therapy Unit and Vocational services and counselling sessions for the children with disabilities. The special educator should also develop Individual Educational Program for the further grooming of these children.

The children with disabilities are generally assumed not to possess the intellectual or cognitive capacity to follow the curriculum. The schools thus, must aim to develop a special curriculum catering to the needs of all children with the help of the above-mentioned teaching strategies in order to meet the needs of the prescribed curriculum. Thus, diversity must be welcomed and teachers and

learners must be supported to value such diversity and not oppose or fear it.

The concept of inclusive education is best implemented with the theory of mindfulness integrated in the classroom learning. Mindfulness also helps in the reduction of stress and anxiety among children as well as teachers and parents. It also helps the children to become kind and productive adults and lead a happy and healthy life. Thus, the goals of mindful education are as follows:

- Self - awareness
- Empathy
- Techniques to calm and focus the mind
- Mindful communication
- Finally, applying mindfulness skills to everyday life
- With these goals attained, all the children and teachers can be made aware about the needs of an inclusive system of education to help the children with disabilities live successfully in the mainstream society.

Various mindful activities can be designed and used to develop the skills of the children with disabilities. For the children suffering from ADHD, Autism, etc, listening to music or other calming sounds in the classroom can be practised to help them to focus. For the children with various loco motor disabilities, many activities like holding cotton balls or sponge, feeling the running water, sand, ice or any other thematic props to develop their sensory experiences can also be practised inside a classroom. To encourage the creativity of these students, the teachers may also encourage imaginative play with clay, slime, etc. Depending on the curriculum, the teachers may share relaxing stories to help the children calm down and regain their energy. The children may also practise mindful breathing to help them adapt with the transitory phases all throughout their educational journey. To help the children learn the techniques of mindful breathing, the teacher may use different yoga pose sequences that the children will enjoy performing.

These mindful practices will also help to develop attentional awareness and a supportive positive behaviour change among other children for the children with disabilities. It will also help to develop compassion and openness as a basis for wise action.

The inclusive schools in a particular area, may also form a mindful schools' community with the idea where teachers and educators can observe and work on their own skills, so that they are more successful in implementing the inclusive techniques as well as developing the students' attentional skills and emotional balance.

Thus, in conclusion, there are two main aspects of inclusive education - the availability of the infrastructural facilities that play an important role in serving the special needs of the students in an inclusive school. The second most important aspect of the concept of inclusive education is the design and implementation of the proper teaching strategies and Individual Education Planning catering to the specific needs of the children with disabilities, for which, schools may appoint special educators and paraeducators. Another important aspect of inclusive education is the awareness about the concept of inclusion among teachers, peers and staff as they play a significant role in making inclusion a success. Thus, as Nelson Mandela says, 'Education is the most powerful weapon to change the world'; let us together create an inclusive platform for all to live and learn together, instead of labelling children having any kind of disability.

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Learning through Sports

RUNA PAUL

The present education system, is aiming at developing the MIND, BODY and SOUL. Imbibing sports in education has come into the schools in India. Sports is transforming the definition of education and it has widened the scope of education. It is creating a difference in pedagogy too.

PHILOSOPHICAL CORRELATIONAL ASPECTS OF SPORTS IN EDUCATION

The Vedas too have given an impetus to sports and in the ancient period also sports were an important instrument for physical and mental maturity. Every element of sports showcases relevancy. The ground teaches hard work and perseverance, the whistle of the coach emphasizes on developing listening skills and alertness. The track suit promotes discipline and loyalty towards the rules and regulations. The tracks of the ground encourages one to be focused and goal oriented, exercises and drills develop discipline and feeling of oneness with the nature and reduces depression. Opponents teach one to work with coordination and cooperation and propels one to face failure with calmness and success with humility. Sports equipments inculcate morality and spirituality and encourages us to play the games in the spirit of the games. The music of the aerobics and yoga creates positivity and enthusiasm. Those who are in sports activity, are emotionally strong and psychologically stable. They have the capacity to negotiate peacefully and are socially active and have better communication skills. Sports can develop the concepts of modernity, equity and growth. It promotes cross cultural ties and indirectly promotes commercial activities too. Sports in education will instill leadership qualities and make the students more rational in their day to day activities. Sports will be opted by students if they get

motivation, guidance and inspiration from home, school and society, community too has to provide a platform for this.

RAY OF HOPE THROUGH SPORTS

Sports, if practiced ardently and seriously will bring about fruits of success in the national and international podium. If sports are implemented properly they can very well reduce the suicide cases in youth and eradicate depression and drug addiction of the present generation. Students should be encouraged to participate in sports activity at school, district, state and national level so that we can pave out ways for international level. Over the years, the scope of sports have increased, players are now getting government job and employment opportunities have increased for the rural and urban youth. Special benefit is given to national and state level medalists in college admissions too. Sports activities can very well develop the perspectives of the individuals and can make them self reliant and sufficient. Impetus to sports will bring about cognitive, connative and psychomotor development. When students take interest in sports it automatically increases their concentration power and helps them to focus in academics.

Sports activities are now making the students change their perceptions and it is helping them to set standards for their lives. Inclusion of sports in education will channelize the energy of the youth in the right direction, it will foster integrity and help students to move on the right path along with discipline and obedience. Proper training in sports will develop a sense of loyalty and dedication and make students more responsible and accountable.

THE CURRICULUM FRAME WORK OF SPORTS IN EDUCATION

The National Policy of Education-1986, has very rightly mentioned that "Sports and Physical Education are an integral part of the learning process, and well be included in the evaluation of performance. A nation-wide infrastructure for physical education, Sports and games will be built into the educational edifice" (cited on

8.20, NPE-1986).Kothari commission too has emphasized the need of sports in education.

Sports need to be made a compulsory subject right from primary level and students should be given an option to select a sport of their choice so that they can become experts and specialists in their respective fields. Special video lectures of the great Olympians should be shown to the primary level students so that from a young age they can develop their liking for sports. There is a dire need to teach the rules and regulations of games to the students, hence from the upper primary level only rules and regulations of games should be added in the syllabus. Educational institutes should collaborate with Sports institutes like Sports Authority of India (SAI) and colleges like Lakshmbai National Institute of Physical Education, Gwalior (LNIFE) etc. to develop the curriculum based on practical and theoretical aspects.

Primary and middle class students need to be given practical classes through field practices and special seminars and workshops should also be conducted for them. Continuous and comprehensive programmes of inter school tournaments and championships need to be executed, The Physical Education instructors should prepare teaching modules on rules and regulations of games and other necessary aspects of teaching sports as per the mental level of the students. There is a dire need to create and develop interest in sports and for that the content need to be created in such a way so that there is no boredom. Students need to be taught how sports can keep away diseases and major illness and they have to be informed about the scope of sports. National Sports Policies need to be implemented in the curriculum. Importance of Yoga and Aerobics have to be incorporated in the classrooms. Students should be informed about the need and importance of awards in the field of sports like Dronacharya award, Arjuna award etc. and their knowledge about national and international players should be enhanced through audio video techniques and through sports documentaries, innovative teaching strategies and interesting teaching methodology is the need of the hour for promoting sports

education. We need to involve our students in at least on sport right from their young age and children who have extra ordinary skills should be given extra care and attention.

The curriculum frame of sports should also include nutrition programmes, eradication of malnutrition, health education, psychology, body postures, life sketches of national and international coaches, players and research methodology too. Celebration of National and International Sports days should be mandatory, students should be involved in organizing intra school sports activities where the entire management should be their responsible. Major emphasis should be given to skill development and martial art training because this will bring about patience and reduce anger and frustration in students.

SUGGESTIONS TO PROMOTE SPORTS IN EDUCATION

In order to inculcate sports in education we need better planning, effective organizing, right direction, efficient staffing and proper controlling only than there will be an increase in the medal tally. Proposals need to be framed for better execution. Sports is a component of social sector and social sector is allocated less amount as a percentage of GDP. Hence, more amount need to be allocated in this sector which can be further used for the development of sports in India. It needs to develop in the schools of rural and tribal areas. The students of these areas are the deprived ones, hence, special efforts need to be taken.

Educational institutes need to be equipped with sophisticated sports infrastructure and good playgrounds, there is a dearth of efficient coaches, in the coming years we need better coaches and trainers who need to be retained through good packages and perks. Many schools do not have enough funds and resources to cater the needs of the students in this regard so the local government, NGOs and financial institutions should come forward to fulfill the needs. More job opportunities should be there through sports quota. Girl students have to be motivated and facilities given inspiring them to take up sports.

There should not be any gender discrimination in it the field of sports and any type of exploitation against girls in the field of sports should be seriously taken up and be considered a punishable crime. School managements should provide latest sport equipment including uniforms, shoes and other sport kits. Sports students should be provided concession in fees and travelling allowances. More sports hostels and clubs need to be constructed and national level institutes for trainers also need to be increased.

Through international collaborations we can improve the standard of sports in India. Schools should also promote traditional games and sports. Teaching fraternity need to take steps to promote sports along with science and technology. Academic researches have to be done in order to imbibe sports in education. The sports teachers of the private schools should be given special financial assistance for their overtime hours. With good governance in the field of sports we can easily and smoothly roll it in our education system. Through proper training and mentoring we can increase the number of sports persons in our country. Schools and Colleges can be the abode of sports if the Administration and Management work whole heartedly to promote it. Commercialization of sports may fulfill the short term objectives but in the long run it may not produce fruitful results. Hence, what is utmost necessary is to develop the sportsman spirit right from a tender age and schools are the best temples of sports.

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Mindfulness in Learning

RASHMI VIJ

I came across an appeal to teachers by a school principal who survived the Nazi Camp during world war and witnessed the tortures committed by educated skilled persons, “My request is to help your students to be human. Your efforts must never produce learned monsters, skilled psychopaths or educated maniacs. Reading, writing and spelling, history and arithmetic are only important if they serve to make our students more human.” It made me think, reflect, review what I was doing as a Principal of a school?

We put all the school machinery into action for producing good academic results, sports persons of high caliber or show stealers in co-curricular activities, but what about producing good human beings?

An immediate answer that crosses the mind is that of course we do have life skills & value education integrated in the school curriculum, the school magazine is based on a value every year so as to make students contemplate and adopt it in their lives and year round activities and events are organized around these virtues. The school morning assembly is organized to instill in children the habit of starting their day on a positive note and provide them faith in God as an anchor to progress further in life or survive crisis. The bhajans and shabad chanted by students in the school morning assembly remain with them forever and enlighten their hearts and minds. Similarly, training in Yoga provided in the school helps students gain mental & physical equilibrium.

Even at the family level, the parents try to teach good manners, behavior patterns and values right from infancy. Their endeavour is always to provide the best education, opportunities and maximum resources to their wards to support their growth. In fact, every facility they themselves could not get, or had an access to is provided.

Children seem to lack enthusiasm to work hard and the fire in their belly to make their mark in life. The teachers often grumble that students have a short attention span, their mind diverts after some time in the class, while many are physically present and mentally absent despite applying best teaching strategies, the desired results do not come.

Being a psychologist, I analyzed the third angle- the students- who are the product of Hi Tech 21st century and suffer from overstimulation of the mind due to over-exposure to internet, stress to fulfill the tall orders of both parents and teachers, peer pressure, and related anxieties apart from other unmanageable happenings taking place in their lives. Their mind is at different levels at the same time, and being exposed to varied experiences firstly in the school and then at home after the school. The schools have rigidly structured time tables and students have to bear long continuous stretches of teaching and learning without any gaps; the school recess is also a rush time- to take meals and use washrooms. There is little time to relax and reflect. With the result a major chunk is not able to concentrate and handle the transitions and challenges taking place in their lives. It hampers memory consolidation, adversely affecting learning & recall.

I explored various studies and approaches and came across literature on Mindfulness, especially by Jon Kabat Zinn which provided me the key to the missing link. Mindfulness according to Psychological Association of America is, "A moment-to-moment awareness of one's experience without judgment." Kabat-Zinn also says, "To focus conscious attention on right here, right now."

It was observed that the consolidation of memory - a process where the brain converts short-term memories into long term memory is affected by many factors (Kornmeier, J., and Sosic-Vasoc, Z. 2012). Significant among them is the lack of consolidation time in the school timetable. It was felt that continuous long study time and rapid mental shift from science to maths to history to english to regional language the students were not getting requisite processing time for memory consolidation, thus severally affecting retention.

Mental and emotional factors like over stimulation of the mind, over-exposure to internet, stress to fulfill teachers' and parental expectations, related anxieties and other unmanageable happenings in their lives (Tolle,2005,2008) affected learning and recall. Behavioral problems also resulted because of detrimental impact of these issues on impressionable minds.

At the core of mindfulness is attention and the brain follows attention. It can be termed as the leader or boss of the brain. It is attention which makes the brain notice, select and direct. Clarifying it further, most accidents take place when attention diverts and the mind is somewhere else. Same happens with the students in the class, they are physically present but the mind is far away somewhere else. In fact, studies show that 50% of the working time, our attention is not in the present but somewhere else. We are in the time travel mode, and when attention diverts a person is not even aware that his attention is deviating. The opposite of wandering mind or mind under stress is "Mindfulness".

A pilot study was conducted in school taking class VIII students as a sample. Two groups controlled and experimental were formed. The experimental group was trained in mindfulness by faculty already trained by the Principal; no such techniques were introduced in the controlled group. After a term a rise of 9.08% in quality performance index of test group was observed during class VIII board examination. Questionnaires were also framed to get the feedback from teachers and students to gauge the impact of mindfulness on other areas as well.

The data analysis of the students and teachers feedback revealed a substantial improvement in all the domains. As far as students feedback is concerned a moderate hike in academic performance by 9.08%, a noticeable reduction or stress by 32% and emotional regulation increased by 52% and behavioral reformation by 41%. The data analysis of teachers' feedback revealed a hike of 26% in memory retention and recall, 56% improvement in learning environment, a considerable improvement of 64% in emotional regulation and 58% in behavioral reformation. Hence, a significant

improvement was visible in the feedback by both students and teachers.

This provided impetus to embed mindfulness in the school curriculum making Zinn's model of mindfulness as the base, and a structure was framed to ensure uniformity in the practice.

- Mindfulness to be practiced by all teachers and students - Nursery to XII.
- Mindful breathing for 5 minutes before beginning of each class to help students be in present, starting with keyword 'Maun' and ending with 'Om Shanti'.
 - ▶ At the onset of classroom assessment and term end examinations.
 - ▶ In any threatening or anxious situation.

Teaching faculty was trained by me and teacher master trainers trained students of nursery to class twelve. Mindfulness practices were explored and selected for different age levels like mindful breathing, body scan, mindful eating etc., with the objective that mindfulness will help both teachers and students on how to remove the 'debris' from their minds; relax and compose. It will help students especially to see the picture clearly and decide the further course of action to be taken. Moreover, it will recharge their minds for better concentration, absorption and learning. Various sessions were conducted by the teachers for students from classes nursery to twelve. At the same time the teachers started conducting mindful breathing at the onset of the lessons for five minutes, to help students relax, to be in the present, starting with key words 'Maun' and ending with 'Om Shanti'.

At present, almost all the students have learnt to focus on their posture and breath, and are learning to regulate their attention. On account of ritualized structured pauses of five minutes, there is calm in the classes; students are better focused, more receptive to learning, able to consolidate their learning substantially are scoring better grades & marks; and handling their emotions better. What is heartening is that many students have taught mindfulness to their

parents as well. Even teachers feel that mindfulness has reduced teacher burnout considerably.

Mandatory implementation does not make any practice successful, it is the positive result that wins wholehearted compliance and acceptance.

While embedding mindfulness in school settings, there may be certain challenges like integration in the school time table, teachers may take it as a mandate from above, hence resist it and may not carry it out sincerely. The students may take it as a forced activity, some may refuse, while others may try to disrupt or distract. The likelihood of students not practicing it sincerely is always there, and then, substantial benefits would not be visible.

To reap the maximum benefits, it is very pertinent to practice a structured form which should percolate top down. Help of experts can be taken in this regard when teachers are well trained, they become efficient master trainers, gain confidence and sincerely support mindfulness. Mindfulness practices should be selected as per the age level of the students and started from nursery to build in the habit. The advantage of introducing mindfulness at age three is that it would be a well ingrained habit by the time a child grows into an adult. Care has to be taken to start with simple practices at the nursery level, raising the level as the age end class moves up.

The best way is to establish routines and practice formally. When it is carried out in an informal manner, there is always a chance of forgetting, moving it out from a packed schedule or under pressure to meet examination targets. A fixed routine with time slot rules helps to ensure consistent practice.

The more students will be in the present, the more they will be discerning, and learning leading to consolidation of memory. Who knows better the power of being in the 'Now', more than a surgeon operating, a justice listening to testimony, a soldier fighting at the border, a pilot flying a plane and the like. Mindfulness will be equipping students to 'Pay attention to their Attention', to make 'Attention' their trusted guide.

Multiple variables impact classroom learning and teaching, various school and family factors contribute to enhancement of learning and grooming of students' personalities. For behavioral and psychological transitions, sole credit cannot be attributed to mindfulness.

The practice of mindfulness embedded in the school curriculum has shown so many positive outcomes that this Best Practice is certainly worth emulating by other schools.

Let the Games Begin

CHARU MAINI

Student life is the most essential part of our life. It is vital to maintain good health so that students can give their best in all the areas. Sports give shape to our personality. It is rightly said, 'Sports do not build character, they reveal it'. In a student's life sports play an important role. Gone are the days when only marks and grades were given importance, these days, more importance is given to skill development and extra activities. Many studies have been conducted on the relationship between physical activities and academic achievements to identify how engaging in physical exercises can affect a child's educational achievements and success. There is a prevalent misconception that sports only helps towards physical development. It teaches many life skills including team spirit and coordination. A well-played game has the power of instilling values like self-motivation, discipline, leadership, taking ownership of success as well as failures.

BENEFITS

One of the main goals behind Sport Education is to help students become knowledgeable about different sports and activities to the point where they can participate at different levels and also choose it as their career option. It makes children competitive, alert and healthy. It maintains the health of the child and increases their stamina. Playing games develops a child's confidence and self esteem. Words of praise from team mates, teachers and coaches fill in them enthusiasm and a feeling to perform better. Children also learn to manage stress by involving themselves in sports. Every sport requires some mental, physical and tactical discipline. Following rules, obeying the coach, practicing restraint, etc. are all forms of discipline children learn through sports. Discipline enables

children to reach their full potential and realize their goals. Not only this sports help in developing social skills too. They develop a sense of belonging and get an opportunity to make new friends. Patience and perseverance adopted at a young age gives them better coping and critical thinking skills to face bigger adversities in the future. They learn how to embrace defeat and accept healthy competition. Working together is an important trait in today's life and learning, how to do so early helps children become better team players in professional life. Physiological benefits are also beyond count. Participating in sports has been known to improve the cognitive and memory functions of the brain, helping kids perform better in tests and academics. Further, traits such as discipline and perseverance also play an important part in better academic performance. If students are involved in sports their mind will not divert and they will walk on the right path. They also get exposure to role models who motivate them throughout life. Above all a student who plays sports will be able to cope with the pressure of tight deadlines much better than the ones who are physically not active. Hence, sports keep children happy.

Sports also result in improvement of confidence, self-esteem for some students who are not strong in academics. It helps to strengthen their belief system that may result in improved academic performance. It is important to provide children with a variety of activities and time throughout the day when they can be active. Researches show that children tend to have greater physical activity participation levels when they are encouraged to and provided with the opportunity to try different types of physical activity. By providing more opportunities, the children are more likely to find activities that they enjoy.

India is currently the most populous country in the world but the nation falls back on sports. It is important to develop sports through curriculum from grass root level. Every school has sports embedded in their curriculum as they understand the importance of physical health and activity.

Understanding its importance in the betterment of students' overall growth, the Indian government has taken strong steps towards the development of sports education in the country. How true indeed! Sports Education is not just about performing a set routine over and over again or a fun activity for recreation. It is also about learning essential values, life skills which are otherwise hard to teach in theory. Sports' power on an international level cannot be underrated as well. It has the capability of defining a nation's development as a whole.

Even the Central Board of Secondary Education (CBSE) has announced to make one period of sports per day compulsory for classes 1 to 12 from session 2019-20. The board aims to provide a focused curriculum for health and physical education including life skills in all affiliated schools. The curriculum consists of four strands consisting of individual and group activities, sports, health education and social empowerment. The syllabus will also include children with special needs.

Integration of sports in the school curriculum should also provide young people with access to facilities and resources, where they can be physically active. The provision of adequate facilities, supplies and equipment are very important on the other hand their maintenance is also important. Schools should keep planning new structures to keep pace with the demand for participation in physical education and sports programmes.

There are many opportunities to reinforce core content in physical education classes. This effort to support Language arts, Math, History, and Science should not come at the expense of teaching physical education standards and content. The key is find creative ways to reinforce the core material while keeping true to the goal of teaching the skills and concepts related to developing lifelong movers.

Ways to reinforce core content in physical education

MATH

Skill drills in physical education provide many opportunities for students to practice counting in multiples. Student can also be given points for completing different tasks. As the points add up, students will need to use basic math skills to compute their score. Another skill that is easy to incorporate is pattern building. This can be done as station work or as part of creative relay races. Money can be used as a reinforcement for completing tasks thereby giving students additional exposure to the look of various types of currency (coins vs. bills) and how to count it. There are also many opportunities to discuss math vocabulary that relate to physical education (e.g. - angle, measurement, perimeter, distance, etc.).

LANGUAGE ARTS

When students enter the gym, a great way to reinforce language arts is to have the students read instructions for their warm-up. If doing this, keep the language simple and post three or fewer basic instructions. Physical educators can use spelling words in a variety of creative ways to help students (e.g. - jump rope spelling, word sort challenge, GeoMat spelling, etc.). PE teachers can also reinforce key vocabulary using a Word Wall.

SCIENCE

One of the best ways to support science is to perform experiments in physical education class. The practical use of experimentation vocabulary when learning about heart rate or burning calories is a great way to reinforce these important science concepts in physical education class. There are also many opportunities to highlight science related vocabulary that is used during PE classes (e.g. - speed, friction, angle of trajectory, fulcrum, lever, aerodynamics, etc.). There are other awesome activities that use student knowledge of science concepts (e.g. - Habitat Survivor (dodging and fleeing), Evaporation (tossing flying discs at a target), Rocket Launcher (striking and catching pool noodles).

SOCIAL STUDIES

Social Studies is made up of a variety of sub-disciplines like civics, economics, history, and geography. Each discipline has unique vocabulary that can be highlighted in physical education classes. If organizing students into squads or teams, using history vocabulary as team names is a simple way to reinforce the terms (i.e. -important local peoples, important historical battles & events, famous leaders, etc.). There are also many opportunities using creative activities that are specific to social studies content (anything that deals with the Olympics can be connected to Greece, Chinese jump rope has a natural connection to the history of China). The key to crossing the curriculum is using the resources available to you at your school.

GOVERNMENT INITIATIVES

In a bid to promote sports in the country, the government has announced the games period will be made mandatory in schools. This year there will be 20 specialised sports schools and the government of India will pump in about ₹ 7-10 crore each.

KHELO INDIA SCHEME

- In September 2017, the Union Cabinet passed the decision of a revamped Khelo India programme at a cost of ₹ 1,756 crores over a period of four years. 2017-18 to 2019-20. The programme objectives are to the mainstream sport as a tool for individual development, community development, economic development as well as national development. The scheme aims at providing a scholarship of up to ₹ 5 lakhs to meritorious individuals demonstrating excellence in sports.
- The Prime Minister Shri Narendra Modi launched the, 'Fit India Movement' at a ceremony in New Delhi on the occasion of National Sports Day. He urged the people of the country to make fitness their life style. Launching the people's movement on the birth anniversary of Major Dhyanchand, Prime Minister Narendra Modi paid tributes to Major Dhyanchand, India's sports icon who enthralled the world with his game and techniques. 'Fit India

Movement' is a reminder, a wake up call to bring these small lifestyle changes.

Sports education thus should be taken up on war footing at schools, colleges and educational institutions for the all-round development of the individual which will help them immensely in their lives ahead.

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Sustainability through Sports

SHARMILA RAHEJA

Every sport needs mental, physical and tactical discipline. Following rules, obeying the coach, practicing restraint, etc. are all sorts of discipline kids learn through sports. Discipline permits individuals to succeed in their full potential and notice their goals.

At the 'Fit India' launch the Prime Minister said, "Spontaneous physical exertion, fitness, exercise, should be the topics of discussion in everyday life in the family". All across the globe people are emphasising on fitness and yoga. In the words of Prime Minister Shri Narendra Modi. "Free from illness, a path to wellness that is the path of Yoga. It makes us better individuals in thought, action, knowledge and devotion". Yoga brings about oneness among the mind, body and intellect, he said, "Yoga is the journey from me to we." Yoga must be integrated within the overall sports curriculum.

Sport is a universal language that can unite people and can be beneficial for inclusion and social cohesion. It shapes the character of a person significantly by challenging an individual's character, value, physical and mental strength in a short span of time.

SCHOOLS AND SPORTS

It is surprising then how sports fare in education in India. It is well established that all children enjoy and have a natural inclination to play yet it is not woven into their regular curriculum. Sports education is fragmentary, often considered curricular and at times, a hobby. There are islands of excellence with state of art infrastructure and a well thought of sports curriculum which contrasts with minimum to no infrastructure schools. Children who run enthusiastically towards playgrounds are much less than those who look for ways to avoid the PE classes. The PE teachers are mostly clueless on how to generate interest and build a culture of sports or are indifferent to it.

Many times school managements do not have enough funds for play areas and are very often unsure of the difference between routine drills and sports curriculum.

While the current education ecosystem wherein students are judged by marks has made parents concerned about academic performance only, it has also ingrained false notions in the teaching faculty.

If we are to equip our students, teachers and educational institutions with the right competencies and capabilities while also creating an enabling and reinvigorating ecosystem for a vibrant new India, then well researched meaningful measures will have to be implemented in schools. Schools are the most accessible spaces to teach students about foundation movement skills and fundamental sports skills.

Existing Curriculum for Sports Education

The NCERT has developed a curriculum on Health and Physical Education for classes I to X. It aims at the theoretical and practical inputs in order to provide an integrated and holistic understanding and developing positive attitudes, skills, values and behaviour associated with health and physical education at the primary, secondary and senior secondary levels. This could have been an exceptional document as it captured interdisciplinary approach, cross curricular planning, need based approach to health and innovative strategies. However the framework spread itself into;

- We and our environment
- Human body; physical fitness and health
- Food and nutrition
- Social health and relationships with others
- Safety and security
- Consumer Health; vocational and leadership aspects.

The resource material prepared on these guidelines is bogged down by trying to teach what students are already learning in their classes. For example, the NCERT Teachers' Guide for Physical

Education for class VI comprises of a total of 10 Units, dealing with human body, its various organs and systems, bones; leaders and followers and gender sensitivity. The entire essence of the subject has been reduced to theoretical concepts. It's ironic that the preface of the same manual (Page no. vi) states that the "focus is on skill development".

While sports could have been a medium for students to learn all the topics above and much more, the manual reduces sports to just theory. In fact, while the policy makers aimed at continuous and comprehensive evaluation of what is learned, the assessment is mostly theoretical and undoes whatever objectives it may have had to promote physical education and health. The manual also does not mention desirable standards of sports most schools are unaware of.

Need for a standards

A teacher who enters a classroom knows what she has to teach in a year, in a week and each day, she is aware of the expected learning outcomes, knows the minimum standards of learning (MLL) and standards of excellence. The curriculum is her guide; such a support must be provided in sports too.

This would involve coming together of all key stakeholders from the Sports Authority of India, State level sport authorities, National Sport Federations and their state units, National and state boards of education and NCERT. Eminent sportsperson could be included as advisors.

The National curriculum could include focus papers, case studies and research on local challenges of implementation of the sports curriculum.

The NPE 2019 mentioned over 85% of cumulative brain development occurs prior to the age of six, asks for access to children aged 3 to 8 years to a flexible, multifaceted multilevel play based and activity education. This has added children of 3-5 years for the first time in the ambit of curriculum at foundational stage. This area will need maximum research and focus by early childhood

educators and expert work since all policies before this look at the needs of students from class 1.

The sports curriculum thus drafted could be piloted and then made an essential component of school education.

Building an Effective Sports Structure in India

Capacity Building of Physical Education Teachers

An interaction and study with over 40 PE teachers of Ghaziabad, all qualified with B'PEd and M'Ped reveals an urgent need for capacity building. A large number of them was unaware of the 'Khelo India' initiative that maps fitness, the PEC cards or the syllabus on health and physical education by NCERT. However, most were zealous about the sport which they had played and were members of their respective state associations.

The capacity building program must acquaint teachers with the curriculum, with integration of sports into curriculum, with standards and learning outcomes. The long term strategy discussed in 'Lets Play' by the Niti Aayog has suggested rotation of teachers in Government schools. This exchange of skills and exposure to different teachers adept at different sport is potentially an excellent strategy for development of sports in India.

Inclusion of Sports training in Teacher training Curriculum

Most school boards in India specify the need of a qualified PE teachers, however their number or an ideal ratio is not specified. Inclusion of sports and what is required is identification of the right skills required to match the updated curriculums and then translating that into resources. Physical Education in teacher training will help teachers' sensitization to sports and also help in the delivery of the curriculum. It may also encourage teachers to integrate learning into sports.

Teacher training in sports must be made mandatory for elementary school teachers so that sports is used for teaching physical movement, skills and through it numeracy and vocabulary.

Develop Sports Infrastructure in Schools

Niti Aayog in its document 'Let's play', which targets 50 medals in 2024 Olympics, has prepared an action plan for revitalising sports in India. This plan mentions how it would encourage development of sports infrastructure. In schools it could replicate its highly successful model of Atal Innovation Mission where Atal Tinkering Labs were established. This would involve developing state-of-art infrastructure in schools through;

- grants,
- encouraging schools to share their best practices and learning outcomes,
- and, assessing these sports programmes implemented by schools on tangible performance goals

Similarly 'Hubs of Learning' could promote sports by sharing teachers and Infrastructure. As an exchange programme, schools should collaborate with other schools and sports academies in the city to train young and budding talents by sharing their sports equipment under the guidance of coaches, so that students could explore different sports and choose one as per their interest. In addition to this there could be a formal mentorship model for schools wherein schools with more funds and stronger infrastructure can mentor smaller schools. They can share best practices, a roadmap that is easier for them to adapt and learning outcomes to make it more efficient for the smaller schools with limited resources.

To draft and implement an effective integrated learning sports curriculum will need focussed attention and planning, however it is essential and achievable. The Central Board of Secondary Education has geared itself to incorporate international standards in learning and excel in Programme for International Student Assessment.

It will be a tribute to Mahatma Gandhi on his 150th birth anniversary to nurture our students holistically. As he said "By education I mean an all-round drawing out of the best in child and man - body, mind & spirit".

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Future Schools

“Real learning comes about when the competitive spirit has ceased.”

—J Krishnamurti

Sustainable Classrooms

SUSHIL KUMAR SINHA

Education means enabling the mind to find out that ultimate truth which emancipates us from the bondage of dust and gives us wealth, not of things but of inner light, not of power but of love. It is a process of enlightenment. It is divine wealth. It helps in realization of truth.

In education, the most inspiring atmosphere of creative activity is important. The primary function of the institution must be constructive, there must be scope for all kinds of intellectual exploration. Teaching must be one with culture, spiritual goal, to foster the intellectual, aesthetic, economic and social. True education is to realize at every step how our training and knowledge have an organic connection with our surroundings.

As a teacher, primarily, and administrator in education for nearly three decades, when I sit back to reflect on my experience, I am thronged with multifarious ruminations on the very premise and purpose of education. What is education and wherein does education lead us? What constitutes the prime purpose in educating a child? Is it merely to make life 'liveable' or to translate life in terms of quality to an elevated, empowered living?

My experience, over the years, has led me to regard education as a way of life that defines and delineates life itself. Every activity, event, incident, observation, thought and predilection that, happens or comes to him contributes to one's education and, thus, evolution. Education empowers man and makes him an instrument of change. It brings out the best in an individual, equipping him with the armour of knowledge and wisdom. The best attribute of education is that it creates awareness in man of his potential and the possibilities that lie ahead of him. Fortified with the armour of education, he is, with élan, able to win over the vicissitudes of life and ascend from a

humdrum existence to 'powerful living'. By the term 'powerful living', I refer to an awakened presence of man, alive in terms of his senses and soul. Nelson Mandela says, "Education is the most powerful weapon which you can use to change the world." Education enhances quality and creates resources of men and women. Life is not merely a biological existence, nor a repetition of past lives and experiences, there are more to these. It constitutes in reaching out to the skies and the universe, probing the unknown and the occult, searching for the depths, striving every moment for excellence and betterment of mankind.

Tennyson says, "The old order changeth, yielding place to new, And God fulfils himself in many ways..." and this works most truly in the domain of education. Times change, and so education should fit itself to the changing demands of the ages. Stagnancy means death and the moment instruction turns repetitive, it proclaims the death knell of education. "Sustainability" is the keynote word of modern education that takes into account the present needs of training without jeopardizing the future aspirations of instruction and the educational needs of children.

"...the guiding principles of sustainable education...(emanate) from the observation that...the rapid changes taking place in the globalizing world call for major educational reform in which the needs of all students are taken into account, the natural resources of the educational environment are not depleted, and the young generation is optimally prepared to meet the demands of the future world." Concerted action, comprising policy measures with regard to curriculum design, teaching methodology, teacher training and equity-enhancing programmes will be needed to raise the extent to which the educational domain produces sustainable output.

Rather than being staunchly orthodox, we ought to live up to the time's demands. We must break down the walls of an institutionalized, parochial system of instruction and open doors to a 'free' education. I refer to 'free' in the sense that the learner should be free to define the system, free to choose and access, from the system that suits his needs, and free to integrate and/ or withdraw

himself from the system as and when he needs. The system must aid the child and abide by his needs and interests. The important reminder is that in no way should it inhibit or cripple the intellectual, social, physical and even spiritual and moral growth of the child.

The 'New Education' of the 21st century, thus, must call for a more holistic, inter-disciplinary and experimental outlook. Life is no ivory tower existence and the child needs inter alia skills and competencies to face the trials and tribulations of life and endeavour for a meaningful living. Education, as it stands today, is not merely pedantic acumen, rather it is a blossoming of all faculties inherent in man. As Swami Vivekananda says, "Education is the manifestation of the perfection already present in man." The monolithic structure of instruction, so long venerated and glorified by the petit intelligentsia must give way to a broader, inclusive form of education. Education must be made meaningful and allied to life. It must incorporate life's sundry experiences and add to the existing corpus of knowledge.

This dissemination of knowledge is a priority in any approach of learning. Knowledge cannot be compartmentalized. This calls for an inter-disciplinary education that relates all instruction into one unified whole. We disintegrate to murder the very essence of learning if education remains exclusive. The child does not require dry dissertations or barren algebra rather he must be equipped with knowledge that shall aid him sail life's ship. Inclusive and sustainable educational practices are today's needs and these cannot be any more overlooked. Bui, Quirk, Almazan, and Valenti's observations can well be called to mind.

"...inclusive education is when all students, regardless of any challenges they may have, are placed in age-appropriate general education classes that are in their own neighborhood schools to receive high-quality instruction, interventions and supports that enable them to meet success in the core curriculum.

Classrooms, thus, have to open up to the changes. The cloistered teaching practices have to be abandoned and an all-encompassing, all-embracing approach has to be adopted. The basic premise is that no child must be left alone. Disabilities and challenges must not

remain a barrier to learning. Individual differences ought to be catered to. Open Classrooms are a good option and give the child opportunities to learn beyond classroom walls and amidst nature. The curriculum must be progressive and address concerns of the world. Experimental learning has to be fostered and stereotyped instruction must be abolished. The head, heart, hand and health (the 4Hs) ought to receive equal attention. A powerful combination of the four can only lead to an impactful learning. Capacity building is the mantra of the times and needs to be stressed upon and enhanced. It is imperative that to stay proficient in this modern world the child must obtain, improve, and retain the skills, knowledge, tools, equipment needed to do their jobs with aplomb. And this should start from the very rudimentary stage of the learner.

One of mankind's greatest resources is human resource itself. This resource, if put to optimum usage, has the ability to do wonders. It can translate every thought, so long undreamt of, to reality; put to practice every precept and lead human civilization to heights of greater glory and achievement. Therefore, it is the onus of every educator, administrator of education and the government to ensure that no child is left beyond the ambit of education. Children must become 'capable' and not merely literate. It is here that approaches of "Interdisciplinary Education", "Experimental Learning" and "Differentiated Learning" become seminal to modern education. Any child, denied access to education, is only a wastage of that resource and turns into a veritable liability for the nation.

The world has changed, so the educators and administrators of education must change. We have to shun the age-old, dead notions and dead habits of educating the child and wake up to and embrace the tenets of modern instruction and learning. The classroom has to undergo a transformation. From a domain of passive instruction, it ought to transmogrify itself to a veritable "activity zone". "Learning by doing" should be made the rule of the classroom. The principle of capacity building through the employment of the head, heart, hands and health must be put into vogue. While 'head' calls for growth of the intellect and ratiocination, the 'heart' for promotion of humane

and social living, 'hands' suggest experience and experimental learning and 'health' signifies physical wellness of the learner. Put together, the child evolves into a resource for the society.

Games and sports are no longer an extra-curricular activity, rather they are assimilated within the curriculum as a co-curricular scope of study. Sports instils in the child virtues of team spirit, togetherness and agility of the mind and body, to list a few. Weakness of the body is the primary barrier in the educational process of the child. A weak body begets a feeble mind and a decrepit soul. Sports and games, on the contrary, start with strengthening the physique and culminate in fortifying the soul against weakness and wickedness.

To conclude, education, thus, remains no longer a body of scholastic learning and achievement in the 21st century modern world, it has become merged with life. Any attribute and skill one learns for life is, in fact, education. It is not merely a mastery over any branch of study or the acquirement of a skill. It is, herein, most apt to end with the words of Kofi Annan: "Education is a human right with immense power to transform. On its foundation rest the cornerstones of freedom, democracy and sustainable human development."

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21st Century Competencies

SEEMA V. NAIR

Students today have to be prepared to face the challenges of globalisation, technological advancement and a competitive, work environment. Hence they are required to be multi-skilled and cultivate in themselves effective habits for developing their intelligence as well as character. Education today has to be transformed to enable the learners to apply different ways of thinking, ways of working and use different tools for thinking and living in the world. In fact, they must be trained to be future ready citizens so that they will be able to contribute and benefit from an inclusive and sustainable future.

COMPETENCIES FOR THE FUTURE READY STUDENT

Students who are prepared and educated for the future will be able to navigate through the complex and uncertain world of today and empower them to face the challenges-be it environmental, economical or social.

For preparing future ready citizens it is important for all educators to investigate the competencies of students needed to succeed and live competently and successfully in the global context.

“A competency is more than just knowledge or skills, it involves the ability to meet complex demands, by drawing and mobilising, psychological resources (including skills and attitudes) in a particular context. For eg. the ability to communicate effectively is competency that may draw an individual knowledge of language, practical, IT skills and attitudes towards those with whom he or she is communicating.” (OECD, 2005)

The meaning of competency has to be understood very broadly. It involves more than mere acquisition of knowledge and skills. A

competency can be so called only when the learners apply their knowledge, skills, values and attitude in unknown and evolving circumstances. They should be able to apply this broader range of knowledge, skills, values and attitudes across a wide variety of contexts in time, in social space and in digital space.

THE 21st CENTURY TEACHERS

The impact of good teaching is increasingly cited as a major determinant of economic well being of society. The quality of the teaching learning process is completely dependent on the teacher. The teacher plays a pivotal role in the classroom. The student achievement, though is dependent on many factors, the most important and inspiring factor is a good teacher.

We are aware that today the role of a teacher has changed immensely owing to the great advancement in technology. The teacher today is not just a giver of knowledge but a facilitator, a guide, a director and a motivator. The teachers of today cannot rely on old traditional methods of teaching but have to constantly innovate and create new interesting strategies, methods and approaches to learning. They have to create a productive classroom environment, to foster skills in students required to enter the 21st century workplace and live in a global environment. The main objective of teachers should be to encourage students to be self-regulated learners and autonomous learners.

Hence the teacher of the 21st century has to be a change agent and adapt to the complex and challenging demands of the students. Therefore it is the pressing need of the times for teachers to know what are the important factors to enhance the teaching learning process in the classroom.

The effective teacher is one who understands that there are core skills and knowledge to be learned and must be presented in a manner that students find relevant and useful. This requires an art and a science to teaching that makes the teacher of 21st century effective.

21st century teaching means teaching with today's tools and technology. It means utilizing everything that is important in today's world so that students will be able to live and prosper in today's economy.

THE NINE LESSONS FOR 21st CENTURY LEARNING

- 1. Make it Relevant:** Teachers must begin with generating topics that have an important place in the disciplinary or interdisciplinary study at hand. The students should be trained to see the bigger picture and then they must be made to understand how each of the knowledge, skill and attitude based objectives contribute to understanding the big picture.
- 2. Teach through the Disciplines:** In addition to giving the student knowledge of the disciplines, students also must be taught the skills associated with the production of knowledge within the discipline.
- 3. Develop Thinking Skills:** Students should be posed a number of thought - provoking questions in order to develop lower and higher order thinking skills simultaneously.
- 4. Encourage Learning Transfer:** Transfer of learning can occur in one of the two general ways: low road and high road. In a low road transfer, students might apply what they know and a high road transfer requires deliberate abstraction and generalization about a particular concept.
The teacher has to ensure that she/he adopts the right questioning techniques and stimulates their thinking so that transfer of learning takes place and students can transfer them to the economic, civic and global contexts that demand them.
- 5. Teach Students how to Learn:** Teachers should provide students activities that develop metacognition. This can be done by encouraging them to explicitly examine how they think. Teachers also can reinforce students' metacognition by modeling it on a regular basis, talking through their thinking, as they address an example problem and then asking students to reflect on their model. Effective ways for teachers to cultivate students progress

in thinking include: praising them for their effort and learning style rather than for their intelligence.

- 6. Address Misunderstandings:** Textbooks leave the challenge of addressing misconceptions and misunderstandings on teachers. So it is imperative for teachers to model misunderstandings and explicitly address them through various approaches to help improve and deepen the student's understanding.
- 7. Treat Teamwork like an Outcome:** The ability to collaborate with others is an important 21st century skill and important condition for optimal learning. Teachers can design instruction in many ways so students learn from and with others, developing their ability to work in teams and building other 21st century skills. Students can discuss concepts in pairs or groups and share what they understand with the rest of the class.
- 8. Explicit Technology to Support Learning:** Teachers must use technology to help students, develop their problem solving, critical thinking and communication skills. Teachers have to know to maximize the pedagogical value of technology based learning.

COMPETENCIES FOR EFFECTIVE TEACHERS

- 1. Command Over The Subject With Constant Update:** The teacher is expected to have a complete grip over the subject and must have the ability to actively construct knowledge through personal and social experiences. The teacher should be result oriented.
- 2 Interpersonal Skills:** The teacher must have effective communication skills, self - confidence and instant decision making abilities to resolve conflicts instantly. The teacher should respect the emotions of the students and create a democratic atmosphere in the classroom.
- 3. Life Long Learners:** Effective teachers are themselves part of a life-learning process. They are able to diagnose situations and use their professional knowledge appropriately to enhance students' learning and to improve their personality to make a better society.

Good teachers are always in search of the activities that help them in their professional development.

4. **Joyful Teaching:** Effective teachers must stimulate students' motivation. They must have a variety of activities and teaching techniques to make learning fun for the students.
5. **Innovative and Creative:** Teachers must not be restricted to a few practices instead they must have a pool of ideas and techniques to offer in the classroom. They should bring surprise and a rich variety in the classroom to avoid the monotony of teaching and learning.
6. **Versatility:** An effective teacher must possess versatility along with a lot of experience in his/her techniques. He/She applies different strategies according to the different learning needs of the students and is capable enough to teach one lesson with a variety of methodologies.
7. **Collaborator:** Working with others is an important 21st century skill. Teachers must learn to share their expertise and experience, communicating and learning from others and be able to reflect.
8. **Digital Literacy:** It is important for teachers to organize teaching resources and activities on one's own website and integrate technology to bring student's learning experiences to a higher level. The 21st century initiatives for a sustainable education must focus on both academic subject mastery and 21st century life skills outcomes.

The government and education policy makers must be more concerned with learning rather than the administration domain of curriculum and teaching. It is important to integrate 21st century skills training into teacher preparation, and certification programs and invest in ICT and provide professional development opportunities for teachers. It is also important to develop professional standards for teachers and reframe the curriculum and design it to incorporate the 21st century learning standards. A lot is being done, however a lot is yet to be achieved for which deliberate, conscious and goal-oriented efforts are required by all

the stakeholders of education-the government, policy makers, parents, teachers and the community.

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A Paradigm Shift in Learning

NIKITA TOMAR MANN

The paradigm shift in the global education system from 'Certification' to 'Skill and Competency Enhancement' is an extremely welcome change, as the system is cognizant of the fact that hands on education is in the true sense, education for life. This move reflects our priority of investing in the future, facilitating economic advancement, productivity and social well being for the individual and society. Although, sound theoretical and conceptual knowledge does serve as a strong edifice, without the development of skills and competencies, there remains an evident disconnect with its application in real life and employability in future.

With increasing awareness on the need for skill development, it is imperative that schools focus on identifying the requisite competencies for the workforce of the 21st century, introduce these skills at schools, provide infrastructural support to sustain this change and train the faculty to effectively deliver these courses. 'Future ready' skills encompass honing competencies such as Financial and Civic Literacy, Global Awareness, Cross-Cultural Skills, Critical and Inventive Thinking, Problem Solving, Effective Communication, Collaboration and Emotional Competencies.

The first and the foremost challenge to the school systems is the alignment of the thought processes of heads of institutions, teachers and parents to appreciate the need of the hour and encourage and steer students to focus on skill enhancement in order to seek leverage from the opportunities that they will encounter in the near future.

The system and syllabi needs to be revamped to facilitate educators to integrate development of skills within the existing system and reform subject-based curricula to an amalgamation of subject coupled with skill based curricula.

In a Content-Centered Classroom, teachers 'cover' content, and students 'acquire' it. In contrast, in a Learner-Centered Classroom, teachers and students use content to construct knowledge. The classical classroom model needs to be revitalized and metamorphosed to bring in fluidity in classroom arrangement, kind of interactions between the teacher and the taught and incorporation of time for focussed activities aimed at skill development. Untethering the facilitator from the front of the class will yield more fluid learning spaces which will promote a wider range of interactions between the learner and the facilitator. We need to create learning commons which are engaging, comfortable and perhaps most importantly, malleable to allow for diverse and innovative teaching practices.

While bringing in changes in the content and textbooks will be relatively easier, the more daunting task is to train the teachers to transform the quality of classroom instruction by including experiential learning and adequate time for internalization of the concept by the learners. Appropriate S.T.E.A.M laboratories, material support and forums for brainstorming will be required to create self directed learners. Educators must plan classroom activities that encourage intellectual camaraderie and attitudes towards learning and build a sense of community. The approach should be, that during such collaborative tasks, students must help one another to solve problems by building on each other's knowledge, asking questions to clarify explanations and suggest ways for the group to achieve its goal. Both cooperation in problem solving and argumentation among students in such an intellectual community, enhances cognitive development.

In keeping with Bill Gates thoughts 'Our current expectations for what our students should learn in school were set 75 years ago to meet the needs of an economy based on manufacturing and agriculture. We now have an economy based on knowledge and technology', research based and proven methods such as 'Design Think' must be explored as a methodology to develop problem solving as a competency.

Classroom transaction is a dynamic process which defines the efficacy of learning outcomes. To make any learning apropos, it is vital that the teacher is enthusiastic, passionate and sensitive to the needs of different learners, accepting of multiple intelligences and takes initiative to assist them in their construction of knowledge through enriching experiences. This is how a learner's old knowledge will transact with new information to construct new, relevant and meaningful knowledge. Academic achievement would then be demonstrated through use of this ability to address and solve real-world problems or to create products that are valued in one or more cultural settings.

With the invasion of technology, we the digital immigrants are struggling to cope with the fast pace at which the digital natives are growing. Technology has changed the way everyone and everything operates in life. While it is a tool that has elevated the manner in which lessons are transacted in classrooms by tapping into the powerful impact of audio-visual medium, it has come with its own baggage of downside. If at school, we are successful in training these young minds on the effective use of technology without getting trapped into addiction, it will be an added feather in our caps.

Academic accomplishment is just one of the multiple aspects of schooling. Considering the VUCA world the students are going to inhabit and function in, the one question all schools need to ask themselves "are we truly imparting education to gear and prepare the new generation to function healthily?"

To make school education relevant yet meaningful, all stakeholders in a child's education must amalgamate traditional and cultural contexts with modern education. As a nation, while we should be quick to adopt all modern day practices, let us not lose the individuality and richness of our value based educational practices which have held us in good stead over centuries.

When we consider internalization of education, besides educating a student for employability, it all gravitates to a few core focus areas that schools need to pay attention to in their daily routine. These vital dimensions which deserve the spotlight should be; emotional

intelligence, collaboration between students, teachers and schools; willingness to give back to the society, identifying distinct competencies in students and providing avenues to hone them, striking a balance between needs and wants and above all holistic health and growth of students.

In the present scenario, much as we all strive to impart quality education to the students, nowhere is it factored into the curriculum to prepare students to handle setbacks, not to compete to defeat others but to compete with self to do better than before, not to be so result oriented that they forget to enjoy the process of learning and to understand that success can be measured in many more ways than just in terms of marks or monetarily.

Now, very often we witness that our prized students who have cracked the most difficult competitive exams to make it to coveted professional colleges, land dream jobs with fat pay cheques are unable to cope with the challenges and stress of everyday life and sometimes succumb to this pressure. Isn't it time for us to pause and re-think about the lopsided nucleus of school education?

Schools are very potent hubs for bringing about any change in society. It is from what we teach them at school that the students carry forth the values, understanding of the environment and their role in it, apply their learning in academics and life, prioritise, take responsibility and be accountable for their actions. Can we then absolve ourselves of the callousness, insensitivity, aggression and immorality that we see in society?

An emotional intelligence curriculum is certainly the need of the hour. This cannot possibly be in the form of a lesson. It has to be designed as games to explore the responses and behaviour of students to unusual circumstances. At a very early age, we need to identify thinking pattern and behaviour which is insensitive, demeaning, uncaring, violent or self obsessed. As educators, mere brilliance at academics should not be a parameter which exempts students from being oblivious to traits of their personality which demand investment of efforts.

Public recognition and acknowledgement of students for good personal values they embody in their daily routine at school, will at least help establish for all students the desirable and expected behaviour. Schools must attribute importance to and celebrate a student who has demonstrated high EQ in dire situations, with as much fervour as a student who tops his class. Similarly, we can begin by creating ample opportunities within our curriculum and assessments for identifying and acknowledging students on public platforms for being team players, effective collaborators, decision makers, critical thinkers and problem solvers ; skills which constantly find a mention as the 21st century imperatives!

While the nation rejoices and commemorates 150 years of Mahatma Gandhi, let us be reminded of one of his most powerful and universally appealing thought, 'Be the change you wish to see in the world'. A paradigm shift to equip students with 21st century competencies behoves a hand holding period along with infrastructural, material and training support, which will prepare educators to be more accepting of this change, effectively manage this change and finally transform into change agents.

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Principals : Serving to Lead

SADHANA BHALLA

My belief is that the school is as good as its leader. That is how critical the role of the principal is. Given the innumerable responsibilities : be it student achievement, teacher motivation, running the school, reducing achievement gaps, supporting instructional practice, garnering the support of all the stakeholders, being accountable and making everyone else accountable, being an academic head and an administrator, it has become imperative that the principal be a strong leader and at the same time a strategist. Needless to say, the principal's position has never been as challenging as it is today.

Yet it remains the most exciting position to be in. Not only does it bring immense responsibility but also opens the possibilities of impacting the generations of tomorrow, positively. It has been aptly said, "When the principal sneezes, the whole school catches a cold. This is neither good nor bad, it is just the truth. Our impact is significant, our focus becomes the school's focus." (Whitaker, 2003, p.30). If a single teacher impacts a student for a lifetime, a principal impacts an institution, the staff, students and an entire community in far reaching ways. Principals profoundly influence best practices and they are the ones who will ultimately gently but firmly teach the future generations to rise above and make the world a better place.

DIVERSE RESPONSIBILITIES

The most challenging part about the role of the principal is the unwritten expectations and responsibilities as the head of the school and a change manager. Three decades ago a principal would have spent little time in the classroom, functioning more as a manager. Today's principal works longer hours, has greater accountability and

has little time to learn or think about how to manage competing demands.

The role of the principal today is even more diverse with:

- New pressures in the form of alternatives to traditional schools.
- Accountability and raising achievement scores especially in the face of the rising expectations of the parents and all the stakeholders.
- Facing multiple instructional priorities with layered managerial and administrative tasks.
- Building and managing a high-quality staff aligned with the school's vision.
- Developing an achievement and belief based school -wide culture.
- Running operations and systems.
- Spending more time to provide the necessary support to the teachers for their work, while ensuring that the grounds and canteen are in order and that the children reach home safe ...A MAJOR CONCERN FOR ALL OF US TODAY!
- Transacting a curriculum which is narrow, catering to the churning out of staid products, putting creativity at stake and now the new curriculum and challenges of assessment.
- Challenges placed by technology.
- Changing social structures and the complexities that go with them.
- Providing inspirational leadership.
- Creating a learning community requires a planned pursuit, yet a principal can easily be consumed by everyday "urgent but unimportant matters."

CHALLENGES AND OPPORTUNITIES

Today our quandary is how to manage time to mentor teachers and work on professional development that yields qualitative results while working to lead positive change. The struggle is to find time to being an academic head who should and must be at the core at all times and not get absorbed by the overwhelming administrative work and the day to day 'running' of the school.

Schools are no longer the self-contained institutions where outsiders come in only when they are invited, or places where once a child is admitted there is no further interaction of parents for the next 14 years or a place which has no bridges with the outside world. Schools offering after-school programs and involvement of parent community require principals to be in the school all the time. The line between school and community has blurred; what was 'out there' is 'in here' as government policy, parent and community demands, and technology have all stormed the four walls of the school. The schools are alive today hinging on close partnerships between all the stakeholders and the world at large. Though the connections with the world have been established making education more relevant and practical, it has also intensified the workload of the principals in today's complex environments.

What is critical is that amidst all this, we as heads of school often forget our own contribution and in particular our own effectiveness. The focus on initiatives, day to day procedures, culture, organizational structures is so encompassing that we forget to stop to question our own mindset. Hence fail to see things that could impact our own progress or question what changes we could possibly make in our own life and professional practice to make a positive impact. Performance pressure, tedious administrative practices, finances, budgeting, commute, recruitment of staff, 'principal musical chairs' and to top it all, difficulties of trying to keep the morale of the teachers high and to ensure that they take their teaching seriously, are just the tip of the iceberg. More importantly, the contemporary principal must also have the skill to deal with technology and its many uses. Discussions about the number of computers in a class is now silenced by issues such as finances and how to plan technology that will improve classroom instruction and relieve administrative functions. Keeping up with technological advancements is a burden coupled with securing resources to equip a school with hardware and software is enough to overwhelm a principal, a task which can easily be taken over by a technology coordinator.

Almost all principals have assumed the sole responsibility for supervising and evaluating the staff besides being responsible for instructional improvement. Many efforts falter because we try to solve challenges by changing our skill sets alone, when we need to also change our mindsets. The tasks at hand are many but what is critical is that we must not lose sight of the fact that our decisions have to be made backed by thorough research and thought as these have the power to impact children. Hence our capacity, skill set and mindset should focus on making informed decisions.

I firmly believe that to be an effective principal, a certain knowledge base is required. To simply place a person at the helm just by virtue of having an experience of 10 years as a senior teacher with a teaching degree is not enough. Intensive training and preparation for the job, experience of working in the shadow of a principal for a few years may prepare the potential principal better for the most important job.

LEADERSHIP STYLE

Probably the relevant kind of leadership in the changing educational scenario is shared leadership where the principal, staff, students, support staff and community members alike view themselves as potential leaders. It needs to be reinforced that 'shared' leadership emerging out of delegation and sharing work does not imply abdication of authority. One does not stop being a leader by doing so and decentralization does not in any way mean decentralization of power. If nothing else, shared vision and shared responsibility brings in ownership and efficiency. Such a style of leadership will not only give time to the head to be the inspirational thinking person he/she needs to be but also clear the labyrinth of the work that stops at the desk of the principal.

LEAD, FOLLOW OR GIVE WAY.

Understanding the pivotal role of the principal, there is a need to create empathy and a realization that schools are changing institutions and that it is paramount to establish 'reasonable'

leadership responsibilities. There is a need to clarify the principal's role and prepare and train for that role accordingly. Creating a job description that clarifies the expectations and responsibilities of principals would help them establish and fulfil realistic priorities.

The thrust should be on giving freedom to the principal to carve out a new role for himself/herself with the focus on student achievement and teacher effectiveness. There is a need to allow the principal to play a role in creating consistent quality learning experiences in classrooms, managing human capital to drive teacher efficiency and build a culture of high aspirations and academic achievement. Maybe the solution for this lies in having two leaders in every school: a principal - academics and a head administrator with the former having a well- established teaching history rooted in strong instructional practices. This person would supervise and teach teams, mentor, give feedback and engage teachers in deep reflective practice and be accountable for student achievement, curriculum and technology. Meanwhile, the administrator's responsibilities would focus on school management including capital improvements, transport, scheduling, data collection and parent involvement, addressing the compliances, maintaining standards of school functioning and such matters. This person should be accountable to the principal- teacher since, the latter's role would be to support the effort and free the former from the management of school. These two positions need to be supported by empowered middle rung leadership in which most progressive institutions have started focussing on.

A principal may have grandiose vision for the school but without the respect of the community, students, teachers, managements, without the opportunities made accessible by professional organizations, without the guidance of senior administrative personnel and support staff, or the support and empathy of the government agencies, such visions may remain well beyond reach. Couple this with conviction, credibility and competence of the principal and the quality of leadership brought to the situation will weather any storm, any challenge and not miss any chance to

ensure that schools become 'beacons of brilliance' not 'potholes of pestilence'.

What makes you the best principal?

Everyone may not be exemplary, just as everyone cannot be great, but as principals, we can make sure that we do our 'basic' best and perform to the best of our abilities and complete the basic tasks at hand. And once done, move forward to look for better and newer ways to do what needs to be done, think out of the box, change systems for the better and help our institutions become better and happier places, but above all, evolve not only in our defined roles as educators and leaders but also personally. At the end of the day, principalship is a calling, a sacred one at that and all that matters are the children who year after year are sent out with the hope that they will in their own little way, make the world a better place.

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The Future is Here

RITA SINGH

If there is one thing that we can be completely sure of, it is the inevitability of change.

With the changing world, there is a requirement for educationists to look inwards, to identify how and in what manner classrooms must change so as to prepare students for the world of tomorrow rather than for the world of yesterday.

The flagship Indian National government scheme, Sarva Shiksha Abhiyan, is aimed at achieving universal quality education for all Indians and is supported in this effort by various schemes on nutritional support, higher education and teacher training. This provides the necessary connect between goals of the United Nations and their adaptation to Indian conditions.

It is important for teachers to, in one manner or the other, re-orient themselves periodically towards the changes at hand; both in terms of the real world as it is evolving as well as in terms of the changes in relationships between teachers and students and the society; evolving expectations, behaviours and goals of students; as also, at the same time, taking into consideration developments and evolutions in technology and available resources as they occur. There is indeed the requirement of some amount of crystal gazing to extrapolate the situation as it exists today to identify the challenges students will need to face tomorrow, as they emerge from school.

In order to do all this, it is thus important for teachers to carefully and deliberately look at what is the changing classroom environment that teachers should be prepared for; so as to identify the situation as it exists now before arriving at a roadmap for how we get to where we must reach, to be prepared for tomorrow.

At a very basic level, relationships are changing between teacher and taught. Ivory tower isolation of academia is a thing of the past. Teachers alone cannot claim to hold the keys to the storehouse of knowledge any more. Knowledge today is everywhere, available on the Internet for free. It is as easily available to the teacher as it is to the student. This has led to a flattening of world and in turn, relationships and expectations in the classroom. In this new world, which is flat in terms of distribution of knowledge, the pedagogy to be adopted in schools must evolve to add value beyond simply imparting knowledge as a one-way process, to be gathered by memorisation. It must cater to add value to the factual information readily available.

Today, any attempt to teach by rote is already archaic and needs to be discarded. Any notion of teaching being a one-way process from a teacher to student also needs to be discarded immediately.

Before progressing any further we would need to see what 21st century skills would include. 21st century skills can be seen to include learning, literacy and life skills. 21st century skills have been variously defined to include Critical Thinking, Creativity, Collaboration, Communication, Information literacy, Media literacy, Technology literacy, Flexibility, Leadership, Initiative, Productivity and Social skills.

It is clear that we need to identify at least some of these core skills and work at developing these. So what should we do?

To begin with, the most important facet of a teacher's work would now need to be to "create the right conditions in schools to learn". Teachers now need to focus on helping students understand concepts, act as facilitators and help students relate classroom teachings to the real world.

It is imperative that teachers encourage discussion and debate to analyse the various facets of a subject being taught in class. This is an extremely important facet, since knowledge gained after questioning and understanding, its logic and rationale, is more likely to be fully absorbed by a student than something the student has just

memorised. Further, discussion and debate helps make the student himself or herself a stakeholder in the outcome of the process of learning ; a far more involved state than just being a bystander who has learnt by rote.

While outcomes will be extremely important in business and industry, in education, the process often has greater relevance than the outcome alone. The entire process of education is 'preparatory by its nature. Thus when it comes to education, processes are extremely important. The only outcome of relevance is 'Learning Outcomes'.

Teachers need to encourage group participation and collaboration. There are manifold gains to be reaped from collaborative effort among students. It helps improve group dynamics, develops emotional intelligence, consolidates learning and provides a human connect while improving outcomes of the project or research itself. Inculcating human values, a connect with the society in which our students live, a sense of responsibility for their immediate surroundings, the lesser privileged, their duties, the environment, the country, and humankind as such needs to be inculcated through the adopted pedagogy. This can be through a wide variety of means, which could include, but may not be limited to, teaching the underprivileged, learning to share what they have, sensitisation towards responsibilities with regard to the environment and so on. As this teaching goes along, there is another important facet that needs to be ensured. For instance while teaching conservation of water, the main focus is upon saving water in bathrooms and at individual level. Students would also need to learn in one manner or the other, the larger aspects of ensuring that society has enough water; to include rainwater harvesting, the importance of aquifers and dams, processes involved in ensuring enough water is available in cities and towns and so on. There is no need to look at amending the syllabus alone to enhance the scope of such education; targeting incremental learning rather than mere repetition. Thus, while saving water can be an excellent start and merits some repetition, students would need to relate the saving of water at micro levels to its

harnessing and making it available to the world at large as well. If the goals defined are narrow, the statement of the problem will be narrow (ie, save water by closing taps). If it stays as such, students at the end of school wouldn't have been exposed to the larger issues; and may not be able to automatically connect micro issues to macro issues. This connect being created in student's minds is extremely important. This can also be done by co-curricular work through hobby clubs and the like: working on various disciplines involving such issues, say the artistic aspects, scientific aspects, engineering aspects, social aspects and so on. Periodic thinking sessions involving teachers would help in refining pedagogy in this regard.

It would be extremely relevant to note that the key in multiple intelligences is not to segment teaching pedagogies to suit different students using different intelligences; a concept that simply can't work. Rather, the key lies in approaching a concept from the direction of different intelligences, helping students consolidate concepts better and helping connect the dots in inter-disciplinary spaces. A student demonstrating one type of intelligence is likely to have others too in abundance. The goal is then to help develop intelligence as a whole. Inter-disciplinary spaces are where voids in understanding and approach often lie. It will be seen that there exists the potential for excellence, for discovery and invention and in turn for demonstrations of brilliance in the inter-disciplinary spaces. A 'multiple intelligences' approach is one way to make students aware of the different facets of an issue.

The focus should be to approach each complex issue from the direction of different intelligences so as to achieve a 360° understanding of the subject. It merits attention that it would be incorrect to assume that a student who displays one type of intelligence prominently lacks the others (though exceptions may exist). Rather, a student may be strong in several types of intelligences. The aim must be to hone intelligences as a whole rather than just one segment in a student. The different types of

intelligences then are but different ways to approach the same complex issue.

Emphasis must necessarily also be laid on 21st century skills and on experiential learning. Research projects could also be exploited to help students learn for themselves not only important issues relevant to their sphere of education and strength but also to develop research skills.

With the larger goal of education in mind, there is great merit in involving parents and families also in the overall teaching - learning process. For instance, parents would have a special role in helping develop human values, concern for the underprivileged, encouraging students to adapt to the changing classroom and so on. These issues could suitably be welded into the Parent- Teacher interactions in various fora, including parent orientation programmes.

Use of computer/ cellphone/ Internet-based applications has the potential to greatly help the teacher in his or her efforts in improving learning outcomes. There now exist a very large number of educational technology applications on the Internet. Teachers would do well to use these applications for teaching. 'Spider Scribe' (to help teachers and students to brainstorm their projects, assignments and papers), 'Live Binder' (to help students find material for reading, assignments and homework without having to go to the library or ask teachers), 'Real World Math' (creates interactive activities in 3-D to engage students with interactive and digital representation of mathematical problems and applications), 'Pro-writing aid' (a writing tool which simply requires you to copy and paste or upload a document prepared by a person. It then provides a detailed statistical report about the writing style, very clearly bringing out the strengths and weaknesses of the individual student). All these ed-tech tools and more, have the potential to greatly improve learning outcomes.

In order to do all this, we need to orient our teachers towards the new classroom.

An immense amount of knowledge actually lies within our schools itself. If we were to for instance, count the total number of years experience of teachers in a school; it would amount to anywhere between a few centuries worth of experience to well over a millennium. Our teachers themselves are capable of reorienting and reinventing themselves and the school environment, if clearly guided and tasked to do this. It would be of great benefit to harness this available experience and talent within a school or within a cluster of schools to review the current situation and arrive at optimal solutions to improve education, keeping actual resources and realities in mind.

What is then required is to make a conscious effort to reorient our teachers and to continue to refine the orientation through sessions to achieve the needful and prepare our classrooms for preparing children for the real world as it evolves. This is an exercise that can be started in schools and then in clusters ('Sahodayas').

We owe it to our students to sculpt the educational pedagogy to prepare our students to emerge from school to be happy, productive citizens and leaders of tomorrow.

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Role of Citizenship Education

SEEMA JERATH & HIMANI TYAGI

We are living in times of unprecedented opportunity and ambition.

India already is world's fifth largest economy and by 2030 it aspires to become a high middle income country. Despite these favourable indicators, a sense of apathy, in fact complete disregard for social ethics and civic rules is also very rampant. A survey conducted by the Wharton School of Pennsylvania concluded that in terms of citizenship rankings, Norway leads while India holds a dismal 55th position out of 80 countries surveyed.

As citizens, we are acutely aware of all our rights and claim them quite assertively as is evident from frequent protests, movements, dharnas and strikes. This awareness plays a vital role in making India a vibrant democracy. But at the same time, not many Indian citizens even realize that rights come with responsibilities. Numerous live examples around us blatantly assert that there is a strong need of inculcating the values that nurture the spirit of citizenship. The blatant disregard for traffic rules, bursting crackers for weeks in spite of a Supreme Court ruling, littering in public places and the list is virtually endless! There is an obvious need to delve deeper into the essence of citizenship.

Our generation can recall our growing up years in schools that were focused primarily on assessment based pedagogy and celebrated academic achievements alone. Children grew up with the notion that their purpose in life is to build a secure life for themselves. It's time that we move beyond it and create a culture which celebrates 'being a good citizen' as much as 'being a smart student'. At DLF Public School, we strive to ensure that our learners actualize not just as individuals but also as citizens. They do not wait for change to happen, they take charge and BE the change themselves.

- **Owning and Rejuvenating Public spaces: The transformational story of Ekta Park**

One success story that stems from a culture of taking care of our public spaces was created collaboratively by the students as they adopted Ekta Park which had become garbage dumping ground, a urinal area, was unhygienic, unsafe and rather a discarded space in our residential society. Today, it stands as a beautiful park, with butterfly gardens, about 5100 native plants, badminton court, swings, flowers, rain water harvesting system and four compost pits and a morning and evening hangout for children, parents and elders! In fact, it is now also utilized as a learning space by students who make educational visits to the park to learn about the native plants, working of compost pit and rain water harvesting system.

This transformation did not come easy but it was worth it. In the process, students learnt on their feet rather than on their seat. Some of our students taught the slum children who live next to the Ekta park under the 'Each One Teach One' Programme. Our efforts were recognized by Disney Friends for Change 'Conserving Green Spaces' and we were awarded special Jury's Mention award for involvement of maximum number of children and maximum community engagement and impact.

Ekta Park today stands symbolic to students' contribution towards a higher and greater good: the public interest. It has now become the lungs of the neighbourhood and has revitalized the local residents lives in a significant way!

- **Owning the issues of community and taking action to resolve them: Compassionate Ghaziabad**

The School, its alumni, parents and students are working on a city wide project to create a Compassionate Ghaziabad City in collaboration with the Charter for Compassion. The idea is to move from being a compassionate self, to creating a compassionate school, to a compassionate city and eventually a compassionate world.

Based on the premise that Compassionate cities are built by

connecting, conversing and co-creating with the community, and gradually increase the ambit of this Compassionate Ghaziabad Initiative, the school organized a unique 'Baithak' with all community stakeholders that included School Leaders across Ghaziabad, members of RWAs, representatives from NGOs along with parents, teachers, students and alumni. During the baithak four strands of the initiative were launched.

- Anna-daan - One strand of Compassionate Ghaziabad is 'Annadaan' which has generated a lot of community interest and participation. It aims at ensuring that no one goes to bed hungry in the city. We are in the process of installing a 'Happy Fridge' at the School Gate. It is essentially a food ATM for anybody and everybody, all seven days of the week. Under this community led initiative, we have made significant progress.
- Walkable Ghaziabad-Envisioning a pedestrian friendly city
- Dhyana-thon-Raising the happiness quotient of Ghaziabad through meditation
- Wait-Stop-Think. Before the drop shrinks!-Water conservation drive

Our students are highly driven and are working in collaboration with various stakeholders to take this huge initiative forward. It is already proving to be a huge learning experience towards being citizens who care and are concerned!

- **Finding purpose in empathizing and helping those in need : Mission Talash**

Our students inspired young India by developing a first of its kind mobile app 'Mission Talaash' to search for the missing and lost individuals and launched it on Google Play Store.

"We were inspired by real time need after we came across two cases of missing individuals of the school support staff families. We were moved by the fact that due to constraints of money and facilities, the families of the missing individuals could not go to police station to lodge the complaint" - Team Mission Talash

This app was amongst top 20 across India at the 'Design for Change 'I Can' School Challenge 2015. It gives us a lot of solace

that our students are not just concerned about themselves and their immediate world but also can relate with the challenges of those who lack means and resources to resolve their own problems.

- **Utilizing Science and Technology to better the world: Empathetic Innovations**

Gone are the days when you charted a safe career path for your students and guided them towards secure jobs, when all that was expected of them was to settle smugly into their lives. The world is evolving fast and it needs awakened global citizens who can proactively take charge of the issues of the world and contribute to make it a better place. There are huge challenges to be undertaken and resolved that include climate change, food and water availability, conflicts, pollution and poverty among others.

At DLF Public School, we set out to create a culture of thinking, questioning and innovating, to inculcate in our students a spirit of exploration and inquiry that can then lead them to develop an aptitude for research. We have covered a significant distance towards our mission as is evident from the following

- **Cultivating civic sense: Beautification of Hindon elevated corridor**

‘What defines the character of a city is the public space, not its private space.’ - Dr. Joan Clos, Executive Director, UN Habitat

Recently, we exercised our student social responsibility collaboratively with many other schools of Ghaziabad. The District Magistrate of Ghaziabad gave us this opportunity to work on the beautification of our city through painting the side walls of Hindon Elevated Road.

Along with 17 other schools of our Sahodaya Schools Complex Ghaziabad, our children painted about 2 km of the Hindon Elevated Road. This initiative was spreadheaded by GDA and supported by Disha Foundation. We do hope this effort does indeed bring a smile to all those commuting between Ghaziabad and Delhi. This is called going an extra mile!

- **Participating whole heartedly in all National and Global Initiatives concerning Climate Change and Environment**

The U.N is actively working on air pollution, one of the biggest killers in India taking 6.2 lakh lives a year the most affected are children. Our school, along with 4 other prestigious schools of Delhi partnered with the United Nations to highlight the issue of air pollution just after Diwali.

Our student team worked on the prime sources of air pollution in Sahibabad Industrial area. Their work culminated in the movie called “Choked Reality” which was screened at the UN in November and is also available on You Tube.

This climate change campaign in partnership with the UN gave our student community an opportunity to voice their concerns about the impact of air pollution on health. It also generated media and social stories around the issue.

- **Mediating for good - Students as Empathy Managers**

We often watch disturbing footage on television or read media reports of road rage, fights and conflicts that lead to disastrous consequences. It's often seen that there were bystanders who could have intervened to avert the unfortunate consequence, but they chose to keep quiet and passively accept what could have been avoided. Speaking up and mediating for good is a value that is indispensable for good citizenship. Understanding and respecting perspectives other than your own and empathizing with them is another value that is valuable for good citizenship. One practice that has consistently produced outcomes is the appointment of six empathy managers in each class. Students who are sensitive and conscientious are chosen to undergo training for conflict resolution and management are then expected to mediate bullying, conflicts and arguments amongst their peers in the classroom. This has led to enhancing the classroom climate, shy and withdrawn children have found their voice through their empathy managers. It was also observed that many empathy managers became primed for taking on bigger responsibilities in the student council.

- **Meditating as a routine to stay anchored**

In the everyday business of life, we forget what is truly important-being kind to ourselves and others, to smile often, accept and welcome challenges as a part of growing! Beginning and ending the day with 10 minutes of silence has been a long standing tradition in the school. It was incorporated in a busy school day so that students could stay anchored in the face of noise and chaos that is a part of their everyday life. It puts them at ease with who they are and that empowers them to be good humans as well as good citizens.

Thus, it will be easier to accept the idea of 'India Shining' when citizens truly relate and engage positively with each other and with the world around them.

Easier said than done, let's catch them young! As educators, we can play a pivotal role in inculcating citizenship in our students by making it a part of their everyday school life.

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Fostering STEAM Learning

PRATIBHA KOHLI

Mankind is at the cusp of the Fourth Industrial Revolution. The ubiquitous internet has led to an unsurpassed mushrooming of knowledge which has baffled and flummoxed all of us. Indeed, information and knowledge have surpassed geographical boundaries and you will agree that any new information from any corner of the world is instantly available to all of us without much ado. This exponential growth of knowledge, made available to us at the click of a mouse or by mobile computing, anytime, anywhere, has undoubtedly necessitated schools to catalyze the transformation in curriculum and pedagogy to make it relevant and contemporary. Is our education ecosystem ready to meet the fast-paced/accelerated growth of knowledge? Are our teachers ready to 'learn, unlearn and relearn' to keep pace with evolving trends of education? Are we equipping our students to face the vast deluge of knowledge with full preparation and ease?

This ever-accelerating bloom of knowledge compounded by the shrinking half-life of knowledge makes it a challenge to decide how to prepare our students for the future. How should the curriculum be designed to meet the needs of 21st-century learners? What competencies should the students acquire to be future-ready for being a part of the workforce, when it is estimated that many jobs which now exist may not exist in the future? Undoubtedly, schools now need to integrate 21st-century skills to prepare students for the future. Moreover, preparing students to be a part of the workforce in the years to come can pose a challenge to the teacher in these times of rapid technological advancement. Hence, revamping and revising the curriculum to meet the burgeoning knowledge in conjunction with the increasing comfort of students with technology can be a daunting task for even an expert teacher. Definitely, the students of today are

more tech-savvy than the teachers and at times, possess more information than a teacher has.

To prepare students to be successful 21st-century learners is the need of the hour. In light of these requirements, STEAM (Science, Technology, Engineering Arts, Math) framework provides limitless opportunities to students and teachers to thrive in the 21st century.

When we consider the challenges of the 21st century and the knowledge and skills that may be required to live well in the world, we think of creativity, innovation, ingenuity, higher-order and critical thinking to solve complex and abstract problems as well as how to get along with one another and become civically engaged. The learning of STEM (Science, Technology, Engineering, Math) subjects, often with the addition of the arts (STEAM), has been widely touted as an urgent requirement to future-proof current and future generations.”

Integration of disciplines where students work as a creative, cohesive and committed team that leads to an amalgamation of arts into science, technology, engineering, math (STEM) should be the focus of 21st-century classrooms. Students will learn to work toward an open-ended approach which will give impetus to their ideation and design thinking. Integration of physical computing and the Internet of Things with 3-D printing will open up frontiers for both science and arts students. Further, the cognitive skills of each student in different subjects can be collated and the resourcefulness of the students will be enhanced. The scope of coordination among students will get an impetus as the contribution of each student will have a synergic effect on the entire project. The blending of arts will catalyze the STEM approach further to making it inter-disciplinary and will allow critical thinking, communication and collaboration.

Initially, STEAM teaching can be disordered and random, so the teacher will be like a moderator, steering the students in the right direction. Technology can enhance project-based learning in STEAM and it will foster an innovative, engaging and inclusive environment in the classroom.

As each learner is unique, to effectively involve a team of learners with diverse interests and with a strong desire to explore the new frontiers of learning with a common thread can be a daunting task. The diversity of interest in students could be well resolved if students are engaged in projects with a common goal. Authentic tasks need to be envisioned which allow paradigm shift from teacher-centered approach towards a student-centered approach wherein the teacher is a facilitator. Allowing students to be tinkerers and neoteric innovators will empower students to take up ownership. The students will learn how to apply, integrate, synthesize information and create new knowledge, and technology can provide a solution to STEAM education.

Given the present scenario of subjects being taught in water-tight compartments, using the STEAM approach may be a challenge. Integration of strengths of various disciplines towards presenting a common solution can be a daunting task and educationists need to explore how it would work. Teachers will need to devise strategies and find topics where STEAM education will work out best.

Supporting teachers in imbibing the revised curriculum in terms of STEAM and teacher capacity building programmes is important. These would endow a group of teachers to work across various disciplines and work towards constructivist knowledge domain. Online learning programmes for teachers with credits should be envisioned. Successful implementation of STEAM would require more than material and resources, it would require a change in the attitude and mindset of teachers. Teachers will need to be life-long learners. Regular hand-holding with resources specially designed for collaboration among teachers is essential. For students to collaborate, collaboration among teachers is of prime importance.

STEAM Labs are fundamental 'makerspaces' where groups of students learn almost everything in a collaborative manner. When students work together, the sum of the parts is greater than the whole. From basic scientific skills to engineering, coding, designing, coupled with creativity and ingenuity, students become neoteric innovators and entrepreneurs of their own work.

Learning of mensuration in Math can be well-integrated with Arts to provide enriching pedagogy to students to become architects and engineers. When students learn the skills of geometry, they can code to produce unique graphic designs and animations. Similarly, the integration of various disciplines while teaching modes of transport can have a cumulative effect on learning scenario. Working with Lego makes available lessons aligned with STEAM solutions and nourishes the critical thinking and creativity of students across all levels of schooling. Further, the combination of coding and programming with Lego bricks allows students to make numerous innovative STEAM-based projects.

For successful and effective implementation of STEAM education, collaboration is the key. STEAM will lead to holistic learning and bring out the innate potential of students. Innovative resources, apps, ICT interventions are required to find the intersections of various subjects. Effective ICT integration with modular equipment will give students the freedom to work in smaller or bigger groups. Interactive Electronic Whiteboard allows demonstration of abstract concepts with ease. Also, knowledge of programming and coding can be an added advantage. Use of 3-D printers and 3-D modelling could help give shape to abstract ideas. STEAM education is inclusive and will involve children with varied interests and abilities. Undoubtedly, its monitoring, assessment and evaluation should allow scope for diversity. Hence, innovative formative assessment and summative assessment along with rubrics need to be constructed using technology which can be customized to suit the learning experiences of the learner. Newer integrated methods of assessment will have to be developed. Indeed, the path of learning will be as important as the goal of learning in STEAM.

Time is not far when several jobs will be taken up by artificial intelligence and machines. Driverless cars, robots, super-computing, genetic engineering, electric vehicles can lead to changes in the pattern of education and workforce, hitherto unknown. However, what will still be in demand is the human touch machines cannot provide, the human touch of affection, love, empathy, critical thinking,

human interactions and creativity. So, while we now focus on Artificial Intelligence and Machine Learning as the requirement of the Gen-Z, it is to be remembered that emotions and values are more important than ever before. Let us strive to further the essence of being human in this era of technology. Undoubtedly, futuristic STEAM labs will be the answer to greater technological advancements and robots will take up several tasks, yet it is important that we focus on social interactions, core human values, and lifelong learning among students. Creativity and collaboration are central to STEAM and these will be most valued in the future. Learning how to learn together is going to be the key to the future.

Sooner rather than later, the Fifth Industrial Revolution will be knocking at our school gates. Sooner than we can imagine, will our students have more knowledge than the teachers. Are we prepared? We have to make our students ready for the future, a future of which we ourselves are uncertain.

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The Real Learning Experience

JYOTI GUPTA

Education has traversed a diverse path over the years and educational reformers have time and again advocated new pedagogical practices to bring authenticity to learning. Researchers have been challenging the existing practices on the ground of their efficacy in making learning meaningful and significant to actualize goals of education.

The development of guidelines for curriculum, content, and assessment is undoubtedly a demanding task. As educators, we always place great value on individualization and originality. Justifiably so, we refuse to dictate curriculum because a good curriculum must be individually appropriate to the needs and interests of the children in a programme. Allowing students to own and drive their learning and engaging them in challenges will provide appropriate mental stimulus that enables next-level thinking for our students with the role of the teachers morphing into more of a caring guide than the 'owner of knowledge'.

Progressive schools believe in imparting research-based education in an endeavor to ensure the stimulation of the intellectual curiosity of the students by catering to the affective, cognitive and psychomotor domains. Child-centric learning is encouraged by constructively directing and exercising the emotions of each child to provide a conducive environment for creative, critical, societal and reflective thinking. In our school, due importance is given to the development of autonomous and responsible individuals who are good human beings and would thereby become valued global citizens of tomorrow.

Genuine learning which can be put to practice by the learners, which can stimulate thinking (both cognitive and affective) and which can be applied to new situations is learning in true sense.

Experiential Learning can be defined as a student-centered learning approach where learners construct knowledge by reflecting on their experiences. Therefore, experiential learning as a pedagogical practice, emphasizes on providing students an array of opportunities to experience, make connections with their past experiences through critical reflection and reasoning, theorize concepts and apply them to new situations in their own personal contexts. This approach encourages learners to question and search for solutions that are viable and consequently more successful than conventional solutions by associating their experienced learning with the actualities of everyday problem-solving. It improves critical thinking and increases engagement and motivation in the learners. Experiential Learning also boosts the retention of information.

When a child learns through experience, there is a huge increase in the amount of information that they retain when given the opportunity to practice in the form of hands-on training. When the students are provided with an opportunity to learn in a pragmatic hands-on conducive environment, they are indeed then engaged and stimulated and often express their desire to learn as much as possible because it shows them how they can apply theory to the discipline or a profession they're interested in and thus have successful careers while making a significant real-world impacts. It encourages students to learn to communicate more effectively with their peers while they discuss possible solutions, make shared decisions, and work together towards developing a solution or product. Students thus become more empowered in their own learning situation and become owners of knowledge in the true spirit.

Some of the significant classroom experiences that lead to learning are field trips, visits, simulations, role plays, expert talks, peer tutoring and presentations using visual and as well as performing arts.

CHARACTERISTICS OF EXPERIENTIAL LEARNING

Connected to real world

Over the years, educators and researchers have emphasized making learners connect with the learning process and numerous strategies have been proposed to achieve the same. When learners engage with things, processes, and practices in the real-world, they naturally get connected to the experience at hand and learning takes place. Constantly creating and recreating knowledge by virtue of understanding and representing the experiences thus imbibed creates a cognitive and associative skill development in early learners. Even a child travelling in a train and looking outside the window learns a lot about the places, structures, buildings, events, anything and everything that comes into view, even for a short while. This experience is more sensory and is felt not just seeing, thus it is retained in memory longer.

Continuous on-going process

Children, as natural learners, are constantly engaged with the world around them, observing, inventing, creating and working things outside the classroom. Their natural curiosity and their innate lack of inhibitions in exploring new possibilities create a broader level of involvement and understanding that enhances creativity. They then use a variety of tools to express their interpretations of the world as they perceive it. Children construct knowledge in their own unique ways as outcomes of their engagement with an array of experiences.

Thinking as well as feeling aspect of learning

One of the crucial stages of learning through experiences is recollecting the feelings associated with the experience. In other words, the learners' own reflection on the experience constitutes an important dimension of learning through experience. In the initial stage of experiential learning, when learners engage in the experience for the first time, they feel the experience using one or all of their senses (sight, touch, smell, hearing, and taste). These senses provide them first-hand exposure to the experience. The feelings invoked by these sensory encounters may vary from one learner to another but are important to set the foundation for future learning.

Reflection at the core of the experience

While learning through experience, it is the reflection on the experience that shapes actual learning. Reflection is the response of the learner to the experience, on the basis of which the learner makes deliberate choices to explore further about the experience and engage in active experimentation. Reflection on the experience marks the processing stage of experiential learning where learners recapture the experience, consciously contemplate over it and evaluate it.

Based on the above characteristics, the teacher may facilitate providing interactive, intuitive, exciting experiences in the classroom to attain their learning objectives. This pedagogical multi-pronged approach will enable and encourage 21st century learners to visualize the world differently. A curriculum that is student-centric and involves the participation of the student not just as an inquirer but also as a partner who reflects and opines. Experiential learning will help us to create a unique educational platform and environment that facilitates and encourages the spirit of inquiry, creativity and moral leadership.

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Education to Edu-Creation

DEEPA SINHA

Today, the world is standing at the cross roads of a global crisis where we are facing environmental depletion and the danger of worldwide violence outbreak at the same time. We are ready to bequeath the next generation, a world that is far from being habitable. The future is not only staring into a dead, barren earth but also global warfare to plunder and own the last few valuable resources left. More than anything, now the need is to take steps to reverse the damage that we have done to the environment, to our future and the injustices that we have dealt to our children. 16 year old Greta's pleas and demands are falling on the ears of the world leaders. We need to raise a generation which would be able to circumvent this crisis. We need to arm them with values and sensitivities that will broaden their horizons beyond classroom lecturing in order, to develop a lucid vision of the socio-political world and the environment. For this to be possible, we need to take a look at our education policies and our curriculum.

Curriculum is that very framework which provides shape, strength and structure to the education system. Without a proper curriculum, transactions in the classroom would be rendered ineffective and won't achieve the desired objective. In a way if the education system is a building then the curriculum is that staircase which would take the students to different levels of proficiency and consciousness about their responsibility.

In rural India, nearly three-quarters of third graders cannot solve elementary arithmetic, basic two-digit problems such as 68 minus 18, and by middle school, half still cannot do so. The world is facing a learning crisis. Worldwide, hundreds of millions of children reach young adulthood without acquiring the basic skills of calculations, reading and writing.

Many international governing bodies have devised the tick boxes for ideal and effective educational models. One such vision of The World Bank is, for all children and youth, to learn and acquire skills that they need to be productive, fulfilled and involved citizens and workers. It also focuses on helping teachers at all levels become more effective in facilitating learning, improving technology aid in learning, strengthening the management of schools and systems, while ensuring learners of all ages—from preschool to adulthood—are equipped for success. The New Education Policy 2019 based on recommendations of Dr Kasturirangan Committee is in congruence with the vision of world bank. From emphasis on early childhood education, curriculum adaptability according to the need of the students, exam reforms, more emphasis on institutes of higher learning, mentoring capability for quality research, use of technology and vocational and adult education, the draft

NEP 2019 has brought under its ambit all possible things that would effectively handle learning crisis faced by the country.

Draft NEP 2019 has proposed reduction of syllabus as well as exam reforms. And it really is important that we think about what and how much is required to be taught at various levels so that we are able to wean our children away from rote learning and take them on a path of critical and analytical thinking. Today the children are burdened with a lot of concepts that they need to study within a given time frame only. Exam reforms are required where we are able to bring in flexibility so that students are allowed to choose what concepts they feel they have mastered and understood well and be tested for those only. So we thereby permit the children to move with the curriculum at their own pace, something like earning credits.

In addition, our country sees the involvement of both central and state governing agencies in designing of the curriculum. This decentralization gives rise to a number of qualitative anomalies in the education. A guideline or a benchmark followed nationwide can be useful in omitting this gap. With focus on the core concepts of numbers and fundamental sciences being a centralized aspect of education, ensuring proper qualitative standards, the languages can be under region based regulation, giving us an opportunity to uphold our linguistic diversity. Moreover, despite the innumerable discrepancies, we have set certain stringent organizational protocols- such as that the eighth graders should be of a certain age and should have a certain amount of content knowledge. Each child should be given flexibility to learn at their own pace. Different opportunities should be made available for higher studies for each one. If we address and handle this, the educators would be able to pay attention to more important fundamental issues and make better, responsible citizens of the children. The education system today looks like an assembly line production process. The need of the hour is to incorporate qualitative aspect in our system of teaching and learning.

The aim and purpose of curriculum should be to hone happy and healthy individuals who go on to become compassionate and wise global citizens. For this, we need to put just the right amount of quality ingredients (of structural reforms), not more not less, and bake it optimally, (with greater emphasis on holistic development) so that the cake is right for all, (the economy as well as the ecology). Let our curriculum raise citizens who have conscience, responsibility, ethics, honesty, who have a will and capability to be the change makers, who have capability to make this earth a better planet.

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Transforming Schools into Thinking Labs

VIJAYALAKSHMI RAMAN

We often read of World Summits to discuss the climate change and leaders of various nations come out with measures to face the consequences of this global phenomenon. These summits and conferences invariably mention the various indiscriminate acts of Man that have pushed the world to this precarious position.

As educators we need to understand that similar to the climate change affecting the environment, the classroom climate is also equally significant. Let's not forget that the future of the country is within the four walls of a classroom.

JOY-O-METER

The Government schools in Tamil Nadu are going to have face-recognition software installed for daily attendance of students. On reading this news report I was delighted that schools are becoming tech-savvy. On the contrary, I wondered if we have a joy-o-meter installed in every school to record the joyous feelings of both students and teachers in the morning and in the evening, how would it be? If the meter reads 'very happy' at the exit, the climate of the classrooms I mentioned earlier has been conducive. Across all schools we find the students waiting for the last bell to get home quickly. Why do students feel stifled in the classrooms? The answer is obvious - the system sans Joy. When I googled for this essay I learnt that the term joyful learning was coined by Udvari-Solner and Kluth in 2007.

From Montessori, Macaulay to Microsoft the educational system in India has undergone various changes in the assessment pattern but not so much in classroom teaching. I am not a critic of the educational system in the past as I feel it is that traditional system in the 60s to 80s that has produced qualified professionals who

program the success of International companies post globalisation. It is the best brains from India who are creating breakthrough in AI. All we need to do is to follow the principles of Joyful learning to make education more fruitful for the millennials who are entering a VUCA world, a world where things are Volatile, Uncertain, Complex and Ambiguous. Sounds quite like Nostradamus but Joyful learning has the power like Mahatma's non-violence to turn the VUCA society into a Stable, Certain, Simple and Clear one (SCSC).

WHAT ARE THE CHARACTERISTICS OF JOYFUL LEARNING?

Students are engaged in activities from which they derive pleasure and obtain a sense of satisfaction as they interact meaningfully with their peers. While they perform challenging tasks they also experience a sense of wonder and curiosity. Joyful learning is a natural outcome of joyful teaching. Teachers who are passionate about their service and who develop a strong liking for the subjects they teach will be able to create the magic in the classroom.

Martin Seligman, Director of the Positive Psychology centre at the University of Pennsylvania in his book flourish mentions five elements of well-being for the teachers. If these elements are focussed the well-being of a teacher is taken care of. The five-fold paths are Positive Emotion, Engagement Relationships, Meaning and Accomplishment. Let us consider each element individually.

Positive Emotions

While in the staffroom, if teachers share positive teaching stories, that will certainly serve as a lounge for positive emotions. More often than not we tend to discuss the details of the notorious acts of students and how we need to punish them.

Engagement

Through creativity, humour or social intelligence we need to devise tasks where the teachers' strengths are reflected. The children of today are over-exposed to media and smart phones. Bearing these challenges in mind the teachers have to design tasks.

Relationships

Developing a healthy relationship with colleagues is an art. Teachers must create time and space to build relationship. I remember how our school makes it a point to create space for the teachers during the Annual Dinner and teachers provide the entertainment. Humorous plays, dance & music form part of the programme.

Meaning

Martin Seligman describes meaning as a connection to something you believe is bigger than yourself. Instead of a narrow focus on the immediate goals of completing the syllabus and preparing the students for the exam the teacher must be able to see the talent in the children. The teacher must be able to see the Mozarts, the Michael Angelos and Sundar Pichais in her class.

Accomplishment

The curriculum and textbooks may be the same year after year. Instead of reconciling to the monotony, the teacher must be a risk taker to try out newer techniques to enable herself come out of the pedagogic cob-web she has spun around herself during her long service as a teacher.

From the five elements necessary for a teacher to teach joyfully let's move on to the over-arching themes that make joyful learning happen.

STUDENT-CENTRED CLASSROOMS

The focus of the instruction moves away from the teachers in such a classroom. In the 1990s when CBSE introduced Communicative language teaching, learning English was made easier as the teacher facilitated language learning. Students work in pairs or groups in this method and perform various language tasks. In the process they learn the language functions and the structures that served the functions.

The FLIP method of learning that is popular now also shifts the responsibility of learning to the learner. The students are asked to go

through certain parts of a unit of a lesson. The following day the teacher has a discussion and then proceeds.

INQUIRY-BASED LEARNING

This approach transforms education from something children 'have to do' to something they enjoy doing. For e.g.; students can form interest groups to research on Chandrayaan. This gives them an opportunity to work collaboratively with peers and connects their learning to personal interests.

MEANINGFUL REAL-WORLD CONNECTIONS

Applying what is learnt in class makes learning relevant. A post-graduate in Physics, for e.g., may not be able to fix the problems in a microphone or a kitchen appliance but a skilled electrician who is less qualified is able to do it quickly. A student interested in Geography must be able to read maps independently. Our educational assessment pattern focussing more on Case-studies, Project work and Practicals will enable students to do what they have learnt.

INTER-DISCIPLINARY APPROACH

Making connections within the curriculum also adds to meaningful learning. Our school organises Educational project once in two years and the various department work on a common theme. For e.g. 'Thamasoma Jyothir Gamaya' was the theme couple of years back. 'Light' became the central topic and it was dealt scientifically, spiritually, mathematically and philosophically. When students work on such projects not only does their knowledge quotient increase but also their presentation skills are enhanced.

INTEGRATING ART IN EDUCATION

The recent guidelines from CBSE to blend Visual and Performing Arts is a bold stride in the path of Progressive practices. Recently during the Reading Week Celebrations we had quite a few

interesting activities. Roald Dahl's birthday was celebrated grandly with a puppet show and character parade from his famous works.

Integrating Art in Education paves the way for Howard Gardener's Multiple Intelligence to manifest itself effortlessly.

GLOBAL LENS OF LEARNING

Technology has provided instant connectivity. In this fast paced world students must extend their learning and explore topics through a global lens. They must understand how their lives are inter-connected with others. They must realise they emerge as global citizens and the world is one. Our scriptures call this 'Vasudaiva Kutumbakam '.

CO-CURRICULAR PROGRAMMES

Almost all the schools have various clubs like the Eco, Debate, Quiz, Literary etc. but in our school we have a Movie Appreciation Course (MAC) for students of middle, high School. The resource person with Media, Mass Communication background discusses the nuances of movie making like photography, editing dialogue delivery etc. to enable students become discrete theatre goers. Movies always fascinate children and MAC provides a platform for the students to look at movies from a different perspective. Sci-fi movies have a lot of Astrophysics, Algorithms and other interesting learning outcomes.

What are the benefits of Joyful Learning? When the classroom climate is conducive and students are engaged in tasks, effective information processing happens. This helps the learner to retain in their memory for long.

1. Stress free classrooms promote learning and retention
2. Novelty promotes quicker information transmission
3. Pleasurable learning experience triggers the release of happy hormone in the brain

Engagement

Attention, Commitment, Persistence & Value are the components of an Engaged classroom. In today's classroom scenario we find the attention span of children decreasing. Technology can be partly blamed for this but the teacher has the challenge of increasing the attention span of the learners. The V-A-K learning style comes in handy to the teacher at this juncture. The personal qualities of Commitment, Persistence and Value of a teacher are the complementary aspects to involve the students in the tasks assigned.

Assessment

Multiple tools of Assessment suggested by CBSE has certainly dispelled rote-learning. When students are asked to design a question paper for their peers they ensure they come out with challenging ones. This is healthy competition at its zenith. Such tools drive away the phobia towards exams and tests.

Learning Environment

Students spend about 6-7 hours in their school. With both parents busy with their smart phones hardly any interaction happens at home. Schools now have the added responsibility of telling students the consequences of constant indiscriminate use of social networking websites and the toxic effect of these on their psyche.

Teachers must intentionally focus on Joy to make the learning environment pleasant. Making the students write Joy statements to begin with will set the ball rolling.

The emotional barometer of the teacher should be constantly 'happy'. If the teacher focuses only on the lessons and exams in the classroom she turns out to be a mere academic coach. The infrastructure of a school can be good with all basic facilities but it is only the teacher who can create a 40-minute magic with her animated conversation, with her quips and puns, with her histrionics and story-telling skills. Teachers can create board games connected to the topic taught and use them for revision. A math teacher in our school used Kunnakol (which is the art of performing percussion syllables vocally in Carnatic music) to highlight the Fibonacci

sequence. Students were totally engrossed in this activity. Bingo cards for periodic elements, Physics of toys are a few other examples.

INDICATORS OF JOYFUL LEARNING

The 'Reflection' column in the lesson plan provides scope for the teachers to introspect and find out if the classroom games/activities that she planned was an enjoyable experience. Depending on the 'Reflection' she can modify the activities to suit her learners.

Internet provides a lot of teaching resources to make learning and teaching a pleasurable exercise. Certain activities need to be customized to our learner depending on the Socio-economic background of the students and the location of the school.

In conclusion let us remember that joy begets joy. A happy teacher can create and protect learning conditions in which happiness can flourish.

Joyful Learning enables the learner to construct Knowledge resulting in deeper understanding of concepts and longer retention. In recent times at various pedagogic platforms the often debated topic is 'Can AI replace teachers?' My answer to this would be AI can never replace a Joyful teacher.

The onus lies in the hands of the KG and primary teachers who lay the foundation of joy on which the pillars of learning are erected by the middle and high school teachers leading to a 'Tower of Joyful Learning'.

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A 21st Century Teacher

PARTHA SARATHI SARKAR

The 21st century generation also termed the 'millennials' is unique. In fact the generation could be more like the generation before them. It's no secret that millennials are a growing generation in the educational sphere. They bring a different attitude to the educational institutions than the earlier generations. This in turn throws new challenges for teachers and their teaching. Every nation builder must learn to adopt new core competencies and ways of guiding these new lights of a new dawn. With the world available at the click of a button, the 21st century people will always opt for better options, be it an educational institution or an educational 'guru'. What is of utmost importance is that we need to retain these options in our institutions because 'millennials' will stay if they feel they have opportunities to grow by gathering relevant learning experiences. Teachers who can show life or career pathways for advancement will be able to retain their current young students better. The millennial generation views study-life balance very differently from that of their predecessors. The 'millennials' want a more flexible study environment that is an environment which gives them mental peace and at the same time, which caters to the perfect career-orientation. No doubt, millennials value growth opportunities, and for this reason, would rather have a mentor-mentee relationship than a traditional teacher-student one. A teacher who can practice empathy, guidance, and nurture a millennial throughout their career will gain his or her loyalty. This generation appreciates positive reinforcement and does better with more frequent check-ins with constructive criticism and praise, as appropriate. The traditional annual report card is not as effective, and they prefer "regular feedback - and mentoring to learn, grow, stretch, and improve." One tactic that can help teach this generation is through the process of gamification. The process is to "build out a gamification model that maps competencies into tangible

elements.” Gamification is an example of a school finding creative ways to engage and motivate millennials, giving them positive reinforcement for advancing and showing them that this learning can be exciting.

CORE COMPETENCIES FOR 21st CENTURY

Today, the focus in the educational arena is LIFE SKILLS, unlike the knowledge based content of the yesteryears. The quality of education, therefore, has also significantly changed. In such a changed scenario where we show the students the way and just check on how they are forging ahead with the knowledge gathered, we need professionals who are competent - mentally, emotionally, culturally and socially - those who have innovation, creativity, talent, problem-solving, and are skilled as critical thinkers, apart from the required knowledge.

But before we delve into the competencies, let us ask, “What does competency mean?” Google defines the word as “the fact of having the ability or skill that is needed for something.” Now the question is, “What are the abilities and skills that one needs in the tech-savvy 21st century, where everything is available at the click of a button?”

First and foremost, one should have excellent mastery of his skills. Apart from that, he must have that knowledge whose application and attitude can even challenge the internet. Based on the conventional performance analysis it is easy to find out whether a teacher is competent or not. But the question arises, if a person has the required knowledge and skill, is he totally competent? What if, he is unable to meet the complex demands of the ever inquisitive millennial minds? Today, dealing with such curious levels of consciousness, every educator needs a wide range of competencies ... to perform complex duties related to teaching-learning, to be a well-spoken and radiant personality, be stable, tolerant and sound mentally and physically, to have an interest and love to work with the younger generation, be a great observer, have the tact, a vivid imagination and leadership.

A basic knowledge of ICT (Information and Communication Technologies) along with its application in the learning and teaching process is very much essential in this smart age, improving the teaching process and its results. It is always important to bring about a motivation in the teaching-learning at this 21st century; and with the aid of ICT, the 21st-century teacher will easily be able to provide technologically supported learning opportunities for students and experience how technology can support student learning, thereby making the class interesting.

A competent teacher is also an exemplary leader, leading the class in the best way possible. From assessing student performance to planning remedial strategies, from maintaining decorum to managing student behaviour, teachers demonstrate leadership at its best.

A teacher should also be competent to identify the appropriate levels of intellectual, physical, social, and emotional development of their students. And in order to address the strengths and weaknesses of each student individually, teachers should have that competency to plan teaching diaries appropriate to their students. They should have that competency to respond to the varied differences and learning needs and implement a variety of methods and materials suited to the needs of all students.

The list of teacher competencies for the 21st century is endless. Effective classroom management, promoting teamwork, planning, communicating and making constant adjustments, teachers should have the competencies to promote positive relationships, cooperation, and purposeful learning.

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Diverse Classrooms

ANITA BHALLA

DIFFERENTIAL LEARNING FOR A DIVERSE CLASSROOM

Children are the real asset of the nation. Each child has an individual entity in spite of the fact they are alike. Their learning capacities have to be explored, developed and directed by understanding them. While all have same rights, duties, motivations and drives yet each child the unique. The physical, social and emotional growth varies from child to child. In reality it means if a teacher wants to help the child, she should try to understand the child's needs, his patterns of growth, his potential etc. At different chronological and mental development levels, the needs of children differ.

For example: the needs of nine years old child will be completely different from that of a mature adolescent.

A teacher should understand the learner as to see his competency and how the child can meet the demands of the world, physically and intellectually. If one wants to provide Nai Taleem, one must direct the energies of the children and help them to develop into good citizens.

In a class room every child's learning of concepts is different and in the same room the mood, language, behaviour of all children is diverse. Children communicate not only through oral and written language but also, they talk with their bodies, their behaviour.

A child is a book which a teacher needs to read. Reading the minds of children is a part of a teacher's responsibility. A teacher has to sort out the ways to understand them. A little assurance, a smile, words of encouragement make a child more secure.

The foremost duty of a teacher is to explore and discover about different behaviour of children. Sometimes children feel neglected, unwanted, unhappy and worried. They want attention. In such cases we cannot label them by calling lazy, mean and selfish etc.

Sometimes in a Diverse Classroom we meet the children with different problems and with unattractive mannerisms.

A perfect individual is the one who is not a photo-copy of someone but rather someone who understands his talent, special skills that he can gradually master and understands the way in which he can contribute in the society. Children must be made to realise that the purpose of being in school is to test and assess his innate abilities and find the route that can lead him to greatness. A school is a community that appreciates and discourages awards, experiences and lessons too. As long as a child understands his social role, it does not matter how much he achieves in the predefined parameters of a general state. All that matters is whether he is spending productive hours at developing his innate skill.

A teacher is someone who, like a mother, interacts with the child and helps him know what he is capable of.

A child is active, dynamic, growing and adjusting. Learning is the modification of behaviour which comes through interaction. Learning is such a process which enlarges a child's understanding of life. Maturity levels differ with growth. There is an expansion of interests, their skills in using tools of learning, ability to meet new situations with confidence. There are various components of growth like mental, physical, social and emotional. These develop at different rates and each learner possesses his own unique pattern of growth.

A teacher can collect exact information of the child by maintaining an anecdotal record. If there is some behaviour or health problem, a teacher can make the child learn in a different way.

The rates of psychological growth and level of achievements differ. There is a great need in diverse classroom to read the reactions of a child towards physical environment, his relations with students, his bent of mind towards studies as well as for co-curricular activities. The children in kindergarten want that they should be constantly attended to school as well as at home. After this stage children want full freedom and want to do the things themselves and want to develop their powers. The behaviour, learning techniques and

concepts of each child differs but a teacher must handle the situation by providing opportunities to all. In the first grade encouragement, ample praise, ample opportunities are required.

In the adolescent period children are very active and creative. This period is transition from a stage of dependence to a stage of independence.

In diverse classroom different adolescents require meaningful psychological counselling. Here positive handling works effectively. This can be proved very useful to identify the latent talents of learners. Here if a learner is provided with opportunity, he can do better.

Many changes can be brought if children are encouraged to participate in co-curricular activities. If initiative is taken by the teacher to boost the personality of learners.

The energy of adolescents must be used differently to exhibit their creativity.

The learner should be encouraged to take up music, dance, painting, poetry, creative writing, theatre, sports and other activities. A Teacher can facilitate in classroom with the following methods

1. Provoke questions
2. Brain storming
3. Project work
4. Discussion
5. PPTs etc.

In a Diverse Classroom there is a need to handle and tackle different issues carefully and judiciously and to educate all about the discrimination and gender sensitivity.

In a Diverse Classroom leaders of different calibres are also found. Here a teacher can play a very significant role by providing help to leaders and other pupils. Here learning becomes performance oriented. The articulation, communication skills, confidence can be honed make them eloquent and well spoken. This is applicable in all classes.

Some Educational Implications

- Level of the learner must be known to the teachers.
- Seriation games should be introduced in lower classes.
- Classroom activities must be maximized.
- Situations should be provided for gathering their own knowledge.
- Small groups activities should be formed.
- Students must be permitted to make their own mistakes and to correct these errors themselves.
- Learners through experimentation can acquire the skills.
- We should customise exercises which are practical and necessary for the children.
- We must create an environment of love, peace, freedom, equality for the learners.
- Need -based learning is very effective.
- Self-motivation is required for better learning.
- Opportunities should be given to learners to become independent.
- New exercises, experiments, practices, games are very helpful in arousing the curiosity of the learners.
- Child centred approach in education emphasizes to teach the child according to his nature, interest and aptitude.
- Children should be encouraged to create their own discovery agenda in groups.

A teacher should be a master who despite being trained and proficient, is ready to learn. A teacher and a student should be co-workers who learn from one another and work as a team. Under this plan, the respect for manual effort would be generated and discrimination against minorities would end. This would also foster technical know-how, scientific understanding, Sober character and inventiveness in a student—an ideal character for the future workforce.

So, many steps can be taken and implemented under the theme

NAI TALEEM

- allowing students to express answers in the language of their choice

- adding more field trips and industrial camp them

Practical applications

- adding a vocational skill
- making seniors teach juniors to give them an opportunity to test their understanding.
- letting students develop their own textbooks by accumulating data from varied sources
- helping them discover their true potential and career path
- giving them specific training beyond grade 5 in the chosen skill so as to improve probability of discovery and invention
- adding more diversification in subjects offered in grade+1 and +2
- making role of teachers more inclusive and like a co-worker
- ending the grading system and bringing objective systems wherein levels are achieved after clearing learning objectives. Institutions always exist for the pupils.

In a diverse classroom all students differ in mental abilities, physique and traits of personality. Some students are highly skilled with their hands, some have good communicative skill, some are good in counting, some are very inquisitive, some are slow learners. Some differ in learning ability, some are very bright. These individual differences are observed by the teacher in diverse classroom. All students in diverse classroom are full of abilities, different interests and with different learning methods.

Here development is individual. Hence the individual differences, if they are taken into consideration, will help individuals develop to the maximum.

In a Diverse Classroom there is different rate of growth and development as development does not start at the same time for all.

The teacher is to create learning situations where the naturally curious children can learn, remember and think in varied ways to respond to the classroom.

1. A teacher is to tailor the instructions to meet individual needs.
2. A teacher is to eliminate the word “No”.

3. A teacher is to take care of the comfort zone of the child.

Certain points can be taken into consideration in lower classes like to play music softly. It reduces the stress and helps the students who develop rhythmic pattern while studying and reading.

One is to take care of language usage in diverse classroom.

Comfortable reading area with comfortable chairs to lighten the moods of different children must be provided.

Small groups of children can be organised to develop integration of the class.

A student should learn about his own culture. A teacher in diverse classroom can use multicultural books and material to foster cross cultural undertaking.

Leadership qualities can be nurtured in Diverse Classrooms.

At higher levels chances of active participation in learning situations must be given.

Adjustments must be made by the teacher

Channelization of the learners interest is a must.

At higher levels knowledge about physical and emotional changes which occur from time to time must be given.

Skill based programmes can be planned to meet the demands of learners.

In a nutshell, one should try to envisage a healthy schooling system where workers, thinkers, inventors and morally sound individuals can be nurtured. A school can provide such a forum to the children where learning takes place based on actual practices and realistic observations.

Future of Learning

MANJU SINHA

INTRODUCTION

The 21st century began almost 20 years ago and has seen changes our ancestors never imagined, even in their wildest science fiction fantasies. We live in a world where anything you want to buy is at the click of a button and thousands stay immersed in virtual worlds. Robots and data science are increasingly making many traditional skills irrelevant. These rapid changes in technology are forcing institutions like schools, hospitals, the government and even society itself to keep up. As we find new ways of automating conventional job skills, the core competencies required by future organizations have changed drastically.

If the initial two decades of this century are any indication, most milestones, good or bad, are being achieved faster than our estimations. This reflects in the advancements in biotechnology as much as in the rising levels of pollution. The challenges of the 21st century will be scarcity of resources and a rapidly rising population, decrease in labour-intensive jobs, advancements in technology and deterioration of social fabric.

FUTURE OF WORK

In order to prepare our students for the 21st century we need to fortify them against the forthcoming challenges as also the likely work profiles. Yuval Noah Harari in his remarkable book goes about preparing us for the future by listing out “21 Lessons for the 21st Century”. He admits that we have no idea what the job market would be like in 2050 but definitely it would be fair to believe that it would be disrupted by Machine Learning, Artificial Intelligence and Robotics. Humans have two types of abilities - Physical and Cognitive. In the past during such periods of momentous transitions, machines competed with humans in physical abilities but humans retained the edge over machines in their cognitive abilities and its application. Hence, when manual jobs in agriculture and industry were automated we transitioned to services sector based on our cognitive skills.

EDUCATION AS THE SOLUTION

It is very difficult to comprehend the contours of the workplace in 2050 or 2075 or the skills needed to survive in a highly automated world. We can however say with a fair degree of certainty that the present system of education needs to keep evolving to be able to live up to the requirements. Earlier a large part of education system focused on rote learning in schools which represented the requirements that came up during the Industrial Revolution, a need to train a large number of workers for small skill jobs of repetitive nature. It worked when the availability of information was limited to libraries and few wise men. Information was power or the route to better life.

INDIAN EDUCATION SYSTEM'S PREPARATION FOR 21st CENTURY

Our policy makers have appreciated the needs of 21st Century paradigms and accordingly we see number of efforts in this direction. The erstwhile HRD Minister, Mr Prakash Javadekar in a foreword in UNESCO-Mahatma Gandhi Institute of Education for Peace and Sustainable Development (MGIEP) magazine has focussed on Critical Inquiry, Mindfulness, Empathy and Compassion as essential skills for our youth for the trying times of the 21st Century for driving social, environmental and economic progress in India and the world.

FRAMING OF NEW EDUCATION POLICY

Mr Ramesh Pokhriyal 'Nishank', HRD Minister has stressed on the significant role of the New Education Policy in restructuring of higher education, promotion of research and promotion of Indian languages. He emphasised the need to equip higher education to facilitate the youth to be more employable, research oriented, innovative and technology oriented.

DESIRED OUTCOMES

The exercise to analyse the future workplace, seek relevant competencies to excel and tailor our education system accordingly is an all-encompassing task involving active support of every stakeholder. The policy makers, the education ecosystem and the parents need to understand the criticality of the situation and put their might behind this initiative. It would be pertinent to aim for the following minimal outcomes at different levels of Core-Skill-Personality (CSP) model:-

Core

- Strong moral compass
- Good communicator
- Critical thinking
- Innovative
- Self-driven and entrepreneurial

Skill

- Technology enabled
- Multilingual
- Cross functional
- Keen to learn
- Analytical

Personality

- Team player and collaborative
- Seeks excellence
- Willingly contributes to nation building
- Appreciate dimensions of fine arts
- Adaptable and resilient

ACTIONABLE INPUTS

Curriculum needs to focus on promoting critical thinking, ethics and morals, measure and enhance Emotional Intelligence, new age technology learning and building resilience by strengthening the personality. Some of the ground has already been covered in the form of redefining the curriculum by introducing Art Integration, Artificial Intelligence, Health & Physical Education.

Tools like Virtual Reality (VR), cross cultural projects, gamified language studies, simulators, Universal Translators to break the language barrier in teaching-learning and 3D Holographic imaging to understand Biology-Archaeology-History. Some initiatives already in place are experiential learning, technology enabled Massive Open Online Courses (MOOCs), project based deliberations, robotics, innovation through Atal Tinkering Lab and Vocational Studies through Skill India Campaign.

Policy makers are working towards an enabling environment for universal & inclusive education to focus on greater good. There is a need to formulate-legislate-implement appropriate regulations and monitor march of technology and its implications

Parents and students need to brace themselves against forthcoming disruptive impact of technology by first understanding the challenge and then skill themselves up to face it fair and square. They need to strengthen a tenuous social fabric in order to support each other and thrive during the next 20 to 50 years. I hope we understand that we meant 2040 to 2070, yes it is mind boggling to imagine what the world would be like then and our children might as well be looking for a job at Moon or running a shuttle to Mars.

CONCLUSION

The best clairvoyants may fail in predicting the future but we can definitely get a drift based on the advances in technology and biotechnology over the last few decades. We need to understand the workplace of the future which could be very fluid, dynamic, interconnected, disruptive and probably chaotic. A future resident of the planet who is of an age 5 to 10 years today would find him/ herself out of place based on the education being imparted today. It is very critical that we analyse this aspect, debate, legislate and execute appropriate strategies to educate and strengthen our future generations to survive and thrive in the Jungles of Tomorrow. They must acquire a technological edge along with personal resilience, analytical skills with empathy, be multilingual with a moral compass. They need to be prepared to be in a constant mode of learning, be a citizen of the world, remain connected with each other and support as well as contest the influence of machines. The future may reflect science fiction or it may be entirely different. They may not learn to drive in days of Ola and Uber but might go on to train for driving inter galactic shuttles. So, they need to train for likely advances of technology as also psychological upheavals. A citizen of tomorrow will need the strength of his mind as well as his heart, knowledge as well as empathy, IQ as well as EQ and of course a fair measure of Good Luck.

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Building Human Capacity

SANDHYA SEKAR

Every child, whose biggest challenge is understanding how gravity works, never has ever had even the slightest doubt about how the law of love works. He has experienced gravity ever since he was born and not to mention, he has felt the love of his mother even before his birth! The reason is simple and obvious- the former is put to him as a theory while the latter is his experience that translates into a theory of his own. Try putting love as a theorem to be solved, kids will hate love! But translating experience and theories into life skills is easier said than done.

Building life skills or human capacity through 4Hs has always been the hidden agenda or the unsaid goal of education. Educators have always worked to connect knowledge and experience to create a noble world. Nothing can ever come anywhere close to the 'Gurukul System' of ancient India which catered to the formula of 4Hs very perfectly and precisely. It worked on the guidelines of what we call a holistic education for overall development. The young Princes, leaving their lives of luxury, went to live with their teacher in his ashram, in the same concept of what we call a residential school. The years spent there moulded the kings to be, where study and internship for hands on experience went hand in hand! The boys were trained to handle a herd of cows with the same efficiency with which they were trained to hold the reins of the army. The boys were made to go through the rigors of life without any concession. They would fetch water for the household from the rivers, eat meager food and live as a commoner did. This understanding of sharing and caring struck the third H - the HEART of the young King in the making, was now beating to learn a life skill and not just a concept. Of course, through the journey a healthy lifestyle was instilled naturally. Thus with 'Healthy mind in a Healthy body' and the fourth

H in place, the Princes were perfectly suited to take over as able rulers who could rule from the heart with a strong support from the head and hand.

Grandmothers could remember and retain an account of the grocery for the house without any formal education. Cooking food for the members of the house hold was perfect mathematics so effortlessly solved. Farmers were never in need of any assistance in their work : harvest ratio that was worked out to perfection season after season. The health benefits from the kitchen racks would amaze any medical practitioner of today. Beauty aids and hair care always came from grandma's magical hands. From aiding safe deliveries to keeping accounts of a complete house hold seemed so simple and easy. Till a few decades ago, even after urban life brought into play nuclear families, children could remember and add up to ten odd details when they willingly ran errands. The connect between the hand, heart and head was exercised with a good schooling. The little boy knew that the speed with which he walked home with the ice cream was directly proportional to the joy of sharing the ice cream, before it melted, with his siblings. The science of speed and time had connected his heart and head joyfully. Children who planned a get together for children's day could make perfect arrangements where accounting, counting and planning happened effortlessly without any adult help because it was the joy of managing the show independently added with the education from school.

Well, none of these activities have lost their charm today. Then what are we complaining about? Well, the change is just that the boy does not have to remember the details or worry about adding them correctly because his mobile calculator is his genie! The joy of having ice cream is not a science because an online order will make everything happen in a jiffy. Planning a party has no accounting involved because online orders put things in place and all you have to do is get ready and be present! So, can we say that the fault lies in our system of evolution?! While the joy experienced remains, the learning has not happened, that is, a life skill has not been learnt.

Where a child could remember the telephone numbers of all thirty of her classmates, today she opens her mobile for even the most called number of her friend. Have we, in the process of building technology diminished the storage capacity of our own built in hard disk which gives us unlimited free storage? We can very well harp on the success of making the tail bone a vestigial organ as we stand tall today (pun intended) but let us make amends before the human brain forgets to think.

While the role of the Head being the head remains intact, rather it is now a life of head held high, it is the connection with the Hs below that seem to be loosening. Is the Genie we created trying to play boss? This time the effects are seen in the reverse order of the Hs. The first victim being Health. This major set back has made the success story seem worthless. Technology, urbanization and environmental issues have made the life of a child so filled with risks everywhere and always. The working mother feels it safe to keep the child engaged in screen time rather than worry about his safety while playing outside. All her health care knowledge seems vain because science has helped increase the produce but decreased the content value. Organic food, the new mantra comes with an expensive price tag..meant only for the elite. With this H leaning for support, think about the hand. The practicality of the scenario is shaken. At the elementary level of education, there seems to be a disinterest seeping in. Class room study seems to weigh down heavily on the students. Lack of sleep and unhealthy life patterns triggered lack of energy make them look at the education system as cumbersome. The limitations faced by educators, as ultimately grades and marks do make a difference, have added fuel to the blazing fire of dissatisfaction. At the end of the year we are not sure if the grades have been allotted for the understanding of a concept as a life skill or for a bit of knowledge that has answered the given question. With a weak Hand, the heart that beats has no emotions to connect to the head. As we talked about in the beginning, the underlying purpose of education has been and will always be connecting the 4Hs to build human capacity. Why then does the challenge seem so difficult now?

Has this challenge grown in magnitude today or has it always been there?

The role of an educational institution and an educator is more important than ever before. Let's remind ourselves that the school is no more a place just for knowledge. Life changing experiences that make for more than volumes of knowledge are the treasure hunts that the students are looking for. Values of life can be best learnt in the class room, provided they are made to happen. Here, the advantages of an institution like Ideal Indian School are second to none. What can be a more fertile ground for all round, open minded development than sharing a class room with students of 33 different nationalities? This is an experience that no event management company can organize or any online store can sell.

Kudos to the efforts taken by CBSE to constantly and continuously watch and research the requirements of the education system. Activity integrated value based education is the best formula for capacity building education keeping the role of the 4Hs intact. Emphasis on student centric classroom has opened the flood gates of opportunities for students to experiment, experience and educate themselves. Using technology to supplement the research makes them competent for the world requirements. Inter cultural exchange allows open minded and healthy communication to develop into world citizens of a unipolar world. The teacher is the miracle maker here, striking the right chord, connecting the 4Hs in the right proportion he/she holds the key to the new world order.

The Digital World

“Things undreamt of are daily being seen,
the impossible is ever becoming possible.”

—Mahatma Gandhi

A VUCA World

RACHNA PANT

A VUCA world symbolises a world which we inhabit today. It's rife with stress borne out of current world scenario. The four aspects defining a VUCA world are:-

V-Volatile - We presently inhabit a world which by definition means liable to sudden change or instance. Its explosive, erratic and changeable, We as educators need to prepare our children to successfully co-exist in it.

U-Uncertain. Its definitely emblematic of uncertain items we are forever in a state of flux. The hall mark of our existence today is battling this uncertainty, be it in careers, politics, family or relation the word stability is sorely missed.

C- Complexity is a sign of progress, it exemplifies a sharp mind capable of analysing, assimilating and interpreting a variety of information, data, situations and emotions. A simplistic worldview will render you incapacitated to survive. You would be paralysed and insufficient to deal with it. A mind which can't comprehend and process multiple information would lose relevance.

A-Ambiguous Our very existence is shrouded in ambiguity.

The erosion of faith, polarisation of world, upwardly mobile population, lack of a value system, lack of anchoring and mooring, lead to a lot of ambiguity, it raises certain existential questions as to "Why we are doing what we are doing?," "Where to reach ultimately?". It's a world designed to create illusions, lacking in answers and role models and severely unsustainable. We as educators need to prepare children who would successfully co- exist in this world, make peace with it and find meaning in it.

The change is here to stay and the only constant. What we want is progress, if we can have it without change, which is a distant

possibility.

What we derive after analysing these four parameters which will define the future is that we need to brace ourselves for a world which is challenging, threatening, insecure and aggressive.

Keeping these things in mind, its highly desirable that we prepare all stake holders- staff, students, parents etc to embrace it by being well equipped to deal with it.

This is easier said then done. What must be done to allow this transition to happen gradually ₹ We need to make an action plan which will be systematic and plug all loop holes which weaken the fabric of our learners.

“A 21st century teacher needs to be a learner who learns alongside the students allowing the students to take lead of their learning, instead of asking them to write an essay, ask them to write a blog, add pictures, polls, opinions, etc. Allow them to partake of the world”. Make education relevant and pertinent.

We also need to look at the fragile ego's and emotionally fragmented children. They need bolstering and strengthening of their moral fabric. There has to be a multiprolonged approach. We need to strike at their root cause. Move from the family to society, from mind to matter, from acquiring to applying. Providing a safe space to learn, grow, flourish and create.

Schools need to review the way education is being imparted, they need to join the dots and correlate them to acquire skills to survive which are called “Life Skills”.

Teaching to cope with failure, losses, stresses, job scarcities, lack of permanence, change of residences, cultures, countries and stretched relations. All these will require us to put our scattered efforts together. Not frame blanket policies, look for flexibility and customization of resources and measures to create multi-cultural inclusive spaces making way for diverse learners and styles of teaching. To create learners who will imbibe these skills, we need to endorse the view held by educationalist like Skinner, Jeanette Wing and Peter Senge.

They believed that building learning power is about :-

- Helping young people become better learners
- Developing their portable learning power
- Preparing young people for a lifetime of learning

The pioneering work on “Building Learning Power Programme” was undertaken by Prof Guy Claxton.

- Building Learning Power:
 - provides a coherent picture of what it takes to be a good learner
 - capitalises on previous learning-to-learn ideas
 - grows a student’s learning character and habits
 - develops the appetite and ability to learn in different ways
 - transforms the culture of the classroom and the climate of the school
 - shifts responsibility for learning to learn from the teacher to the learner
 - engages teachers and students creatively as researchers in learning
 - gives schools the opportunity to track students’ learning power

What effect will BLP have?

- raised achievement
- improved behaviour
- increased motivation
- supple learning minds
- increased enjoyment in learning
- established habits of lifelong learning
- enhanced creativity

As we contemplate on the future and specifically on the role of educators and learning, a few insights emerge.

In the foreseeable future, both the human populations and its longevity will be increasing significantly.

The traditional authority driven education system, is no longer equipped to cope with the emerging challenges, and the big

opportunity is for educators to emerge from the background and take centre stage in addressing the challenges.

Autonomous Learning is the Future of Education

Probably one of the most talked about technologies in today's world is the self-driving car. We are presented with the same kind of thinking when it comes to education. Let's think about the self-driving student, also known as the self-directed learner or the autonomous learner.

We may think of it as the ability of the student to work independently and being given the freedom to do so. Autonomous learning would allow the learner to personalize his/her learning agenda based on his/her academic strengths and personal interests, and self-monitor his/her achievements.

Regardless of the teaching/learning philosophy, the teacher remains an integral part of the learning process. Just like an autonomous car, there needs to be some guidance and direction in order for that vehicle or in this case that student to arrive at its destination.

The teacher will be responsible for sharing self-monitoring strategies.

Teachers must provide the necessary guidance to help students choose their personal learning goals. Teachers must provide feedback as student pursue their own questions and solve their own problems. Teachers remain the most important part of the autonomous classroom.

The future educator will be adept in handling both intelligent machines and intelligent humans. The accomplished educator will "train software" and "educate humans".

Innovative Learning Practices

“The ignited mind of the youth is the most powerful resource on the earth.”

—A.P.J. Abdul Kalam

Skill Education - Learning to Learn

PARAMJIT KAUR & BHUPINDER SINGH

INTRODUCTION

There is a need to get set to change the way we look at schools. The School should combine and align school curriculum with skill development activities so that students can strive through their lives for excellence. We need to constantly motivate the students to pursue vocational, skill based courses like which not only bridge the demand and supply gap with highly skilled workforce but are also an asset to the economy.

CASE PRESENTATION

Identification and analysis of problem

Millions of graduates pass out of our universities annually, a rich vein of talent and resource for the industry to tap into. Yet, every year, the gap between offered ability and employability widens and the industry struggles to map the right set of skill sets to the jobs on hand.

Skill development courses not only offer knowledge but wisdom also. One helps you to make a living; the other helps you to make a life.

Skill based education today is not a choice but a dire need in India where the demand for skilled professional is still very high and the desire to get skilled is low. Learners, parents and society prefer socially acceptable qualifications in pure academic subjects. The misconception that skill based education leads to low paid jobs needs to be changed.

The aim of the curriculum is to cull out ideas, creativity, imagination, originality and talent of the students. Having a syllabus

is very essential but new approach to ideas and individuality of the child should be honed throughout the education.

Objectives

Skill Education was introduced in the school to

- provide right skill sets appropriate for different industry to the students
- provide hands on experiences to the students in skill subjects
- provide practical oriented skill education to students
- enable students to become successful entrepreneurs.

Planning done

- Creation of awareness amongst the students and parents regarding skill education
- Arrangements for the best infrastructure and well qualified trained faculty
- Planning of curriculum keeping in pace with the present day needs of the students
- Arrangements for providing career counseling and guidance to the students

The curriculum is designed in keeping pace with the present day financial needs of the young generation while teaching them Budgeting, Banking, Credit & Debit cards, all about Shares, Mutual Funds, Insurance and even Retirement Benefits. It enables the students to achieve their financial goals on short-term and long-term basis. The stream caters to all things that students need to be familiar with much before they are out in the real world to earn a living.

IMPLEMENTATION

BCM Arya is a proud pioneer in North Zone to initiate Financial Market Management (FMM) stream in the school in 2007. Efforts are made to impart financial literacy and inculcate the culture of savings and investment amongst the students. It is a practical-skill- based stream and helps the students in not only to become successful

entrepreneurs and good businessmen but to become effective and meticulous financial managers also.

It not only develops the skills of the students but also provides the platform to enhance their confidence while participating in the various Presentation, Guest Lectures, Professional Trainings, Industry Visits, Orientation Programs, Case Studies, Projects, On Line Mock Training, NSE's Online Exam and much more.

Since its introduction ten years back, more than 400 students have completed this course. Presently, 84 students are pursuing FMM at XI and XII standard. Most of the pass out students are well-employed and have started their own standard businesses and are studying in reputed colleges of India or abroad. We always provide latest updates about FMM achievements and activities through the school website.

Besides the classroom teaching, the students are also introduced to Online Modules of National Stock Exchange which added their professional skills.

From time to time, a number of activities / programs are organized by the school besides academic curriculum :

- Orientation Programs for the students, teachers and parents.
- Guest Lectures by Eminent Professionals from the Financial World.
- Mock Trading and NCFM online Exams through National Stock Exchange (NSE), Mumbai.
- NISM -NFLAT (National Financial Literacy Assessment Test) conducted under the guidelines of RBI, IRDA, CBSE, PFRDA and SEBI (Annually).
- PAN Card Camp.
- FMM Zone in the school website to guide other schools and general public.
- Principal Meet of City Schools' heads.

INDUSTRY VISITS

Apart from theoretical knowledge, industry visits, are regularly arranged for the students to familiarize them with the real work of culture and their employability. Interactive sessions are conducted with the industrialists who share their success stories with our young buddies'.

To Promote Skill Education FMM Dept. Actively Participated in the Various Events

Students designed model of National Stock Exchange Mumbai and demonstrated the operation of Stock Exchange, SENSEX calculation methodology, Online Trading Software-NEAT Trading System to the visitors

Product launching ceremony- IPO (Initial Public Offering) listing, NFO (New Fund Offer) Annual General Meeting (AGM) of the Public limited Company

INCOME TAX AND PAN CARD AWARENESS CAMP

Visits and tie ups with Brokerage houses

Visits and tie ups with Mutual Fund Asset Management Companies A few of our students have in fact benefitted from these visits as they have started earning as Financial Advisors at a very young age. At present they are Qualified Financial Advisors in Mutual Fund after clearing NSIM- MF distributor Exam within the country and abroad. To Name a few - Avneet Singh (Ludhiana), Varunpreet Kaur and Aryan Khurana (Canada)

TEACH THROUGH TECHNOLOGY

The Teaching process is future orientated and emphasizes exhaustive use of technology in education which is a gateway to global learning.

The school has well equipped wi- fi Lab with 42 computers to cater to the needs of the students. Students visit FMM Lab daily to get update of the stock market, to practice NLT (NSE Learn to Trade) module, do analysis on various schemes and stocks through

www.moneycontrol.com; www.Screener.in; www.nseindia.com;
www.investopedia.com; www.nlt.co.in; www.ncfeindia.org;
www.sebigov.in etc.

Apart from prescribed CBSE curriculum students also appear in NCFM (NSE's Certified Market Professionals) modules during two years of FMM study at class XI & XII.

TEACHING EDGE

NFLAT (National Financial Literacy Assessment Test)

It proved to be a turning point for us as we enrolled students of classes 6 to 10 for the NFLAT Online Test to boost up the financial literacy among the children.

The Students first appeared for this prestigious exam in 2014. Senior FMM students visited classes 6 to 10 to teach them Financial Literacy Curriculum. They taught Banking, Insurance, Stock Market, Pensions and much more during week long coaching classes.

VERTICAL MOBILITY

Graduation courses in Skill Education (After 12)

A platform 'Interaction with seniors' was provided. List of courses was displayed on school website for those who are seeking admission in the relevant courses.

PRINCIPALS' MEET

In order to reach out to maximum schools in the city and stress on the need to introduce skill education in schools a Principals' Meet was organized in collaboration with CBSE and NSE.

TRAIN THE TRAINERS

City Schools Introduced FMM Stream

Presently few city schools have introducing FMM stream in 11th and 12th standard. Our school is providing first hand information regarding the implementation of skill education. We are providing

guidance to these schools through the training of the teachers and giving orientation to their staff members.

We were invited to the National Stock Exchange to share achievements of Skill Education in the School with CBSE Schools' FMM Faculty.

CHALLENGES

1. To create awareness amongst the students and parents regarding Skill education.
2. To generate interest of the students.
3. To provide the best infrastructure and well qualified trained faculty.
4. To ensure vertical mobility of the courses at the graduation level.
5. To provide career counseling and guidance

CONCLUDING REMARKS

Education is double edged sword that helps students to fight, triumph challenges and face the various phases of life with a positive approach and 'never say die' attitude. There is a need to provide the youth with requisite skills to be employable. Skill education will help students to get hands on experience and give them a much needed edge to perform in a competitive world.

We at school allow students to apply the knowledge they acquired to real world problems and situations to develop sound judgment and good habits for long term stability, wellness and success. To sum up, I would like to add that this stream helps prepare students for challenges.

Student Empowerment Through Values

R. VARADHARAJAN

INTRODUCTION

Under the topic 'Promotion of value Education' the school is conducting various value added program. These programs are our best practices in our school.

The programs are:

- a. Nutrition Supplementary Program
- b. Honesty Shop
- c. Mullyavardhan Program
- d. Desh Apnayen Program
- e. Smart Girl Program

Nutrition Supplementary Program

The students of classes LKG-V stds are provided with vegetable salad, fruits, nuts, sandwich and biscuits on all the days during the afternoon break time to enrich proper energy to the students. X and XII Standard coaching students are also provided with Health drink and Biscuits.

Honesty Shop

Honesty shop has been functioning well at our campus, Supplying the essential items to the students on self service basis, which is maintained by XI Standard Marketing Students To Promote Honesty among the students.

Here, students are dropping the amount in the box and then take their requirements. Our school won the pioneer in starting the honesty shop which is followed by other schools also.

Mullyavardhan Program

Training program was conducted by “Shantilal Mutha Foundation” for teachers. Our school teachers participated/ attended the program. This was followed by a training session for our school teachers in our school premises by trained teachers.

The program has been implemented for class 1st - 3rd Standards for the year 2018-2019. Books were given by “Shantilal Mutha foundation”. This training is leading the children to become good democratic citizen with self awareness, self development, responsible decision making, relationship skills and social awareness.

Desh Apnayen

This program is promoting citizenship education and ownership of our country among our youth and civic participation among young students.

FJEI, National president Sri. Vallabhji Bhansali, is the founder for Desh Apnayen Sahyog foundation. They have given training for teachers. Three of our teachers underwent this training.

We have Desh Apnayen citizenship club. These club has teacher incharges, office bearers and members both boys and girls. Every Tuesday, we have the club. During these sessions are a doing lot of good practices with the help of monthly planner. We are conducting many activities and moulding students.

We are happy to inform you that we have received “Desh Apnayen School Award 2017-2018”. Students are enthusiastically learning and participating.**Smart Girl Program**

We empower single women to be self reliant. Make them to mature, usage of media and to guide them to take independent decisions and to face challenges, help them to understand personal safety.

Workshops were organised by BJS with support of FJEI-Tamilnadu. Two of our staff members attended in turn they have trained more than 30 teachers. Main objectives “Enhance Awareness”. Students (girls-IX and XI std) were given training to

face personal challenges. We have seen many positive changes in the girls. Each chapter is taken by different teachers. 09 teachers are handling Smart Girl Program.

We have implemented the program in the year 2017-2018. 89 students have completed the course. (IX B & XI B). This year 2018-2019 122 girls are undergoing training in the Smart Girl Program. (IX B, IX C & XI B). At the completion of the course, girls were given certificates issued by the Tamilnadu State Council.

These are value based programs. These programs are helping the students to promote values, citizenship education, civic participation, enrich the knowledge to take independent decisions.

CONCLUDING REMARKS

The programs under the topic “Promotion of Value Education for Students Empowerment” is team work thereby creating a positive teaching learning environment in the school and upgrading the quality of education provided by school.

Innovative Promotion of Mathematics

G RAJESHWARI & SHANTI KRISHNAMURTHY

INTRODUCTION

In our Schools, today we find students have a phobia for mathematics. It is alarming to see 20-25% of children are afraid of the subject. Mathematics occupies a crucial and unique role in human society and represents a strategic key in the development mankind. The ability to compute, relates to the power of technology social organisation, geometrical understanding of space and time, the role of Mathematics in the development of a society. The main aim of Mathematics is to make children enjoy the subject-give that 'wow' factor, connect it with their real life and hence make them reason out while applying the concepts. With this objective in mind, innovative practices like Math Run - Fun filled group Math games, Mega Math Expo-An exhibition on Mathematical concepts, puzzles, games etc. and Math challenge board - An initiative for the high achievers has been taken up by the mathematics department of Chinmaya International Residential School.

CASE PRESENTATION

Identification of the Problem

As mentioned in the introduction, the need was to create an interest in the subject of Mathematics and motivate children so as to remove their anxiety for Mathematics. As a first step, a performance test was conducted for the students with the age group of 12 to 16 so as to test their analytical and problem solving skills. It was noticed that the students underperformed in these exams and the problem is prevalent across classes. Based on the test results, all the teachers of Mathematics brainstormed and came out with the plan of organizing different events for the students wherein they enjoy Mathematics as well as learn. The Math run and Mega Math expo

was conducted in the month of July and the Math Challenge started in the month of July and is still going on.

Analysis of the Problem/Issue

Looking at the problem from the teachers' perspective, all efforts are taken in order to teach the children. The school has the necessary infrastructure, technology and lab equipment. The teachers brainstorm and use the best available teaching methods. However, it is observed that the students have some sort of fear and anxiety when it comes to problem solving. **Objectives:**

- To remove the Math anxiety among the students.
- To create an interest in the subject of Mathematics and hence to improve their performance in the tests.
- To enable students:
 - To appreciate the usefulness, power and beauty of mathematics
 - To enjoy mathematics and develop patience and persistence when solving problems.
 - To develop mathematical curiosity and use inductive and deductive reasoning when solving problems.
 - To become confident in using mathematics to analyse and solve problems both in school and in real-life situations.
 - To develop the knowledge, skills and attitudes necessary to pursue further studies in mathematics.
 - To develop abstract, logical and critical thinking and the ability to reflect critically upon their work and the work of others

Planning:

- It was decided to connect mathematics with real life situations.
- Brain storm and plan fun filled Math activities which will create an interest in the students.
- Motivate students to participate by giving points for the house they belong.
- Processing and execution of the whole plan
- Awarding the winners and the participants.

IMPLEMENTATION STEPS

Activity 1 - Math Run

Objective: This activity aimed at

- Taking children beyond text books by organizing games based on the concepts.
- Speed and making children alert. It was a time bound activity wherein each task had to be completed in a period of 10 minutes.
- Team work since children worked in groups.

The Math run is a series of Math games of different levels for different age group. The Junior School consisting of students of grade 5 to 8 and the senior school students of grade 9 to 12 were divided into eight groups of ten each. The timings were different for both the groups. There were eight station sets, all with different activities wherein students have to solve a problem or solve a riddle or guess the number or think out of the box to score points. The activities were time bound and the teachers were the organizers and scorers at each station. After 10 minutes, the groups have to move to the next station and so on. The groups with maximum score were awarded. The activities conducted at different stations are mentioned in Appendix -A.

Activity 2 - Mega Math Expo

Objective: This activity aimed at

- Getting the concepts clear.
- Connecting real life to the concepts.
- Creating excitement in solving puzzles and games.
- Pride in the subject since all students 100% of them managed the stalls explaining the concepts.

The Mega Math Expo is an exhibition on Mathematics. The Mega Math Expo was organized on 12th July, 2018, from 9am to 5.30 pm. The event aimed at moving the young learners from a passive transference of Mathematical concepts towards an authentic application of Mathematics in a real-world. The expo was

inaugurated by Pujya Swami Anukoolananda, the Resident Director, Chinmaya International Residential School.

All the 580 students of CIRS participated in the event. There were 126 stalls with a variety of exhibits showcasing Mathematical concepts, puzzles, Games, Facts, Mathematicians and Vedic Mathematics. 300 Students from 9 other schools of Coimbatore visited the Expo with their Mathematics teachers. The event was a grand success. The event was reported by the 'Times of India', Coimbatore edition. The list of exhibits is mentioned in Appendix - B.

EVIDENCES OF SUCCESS

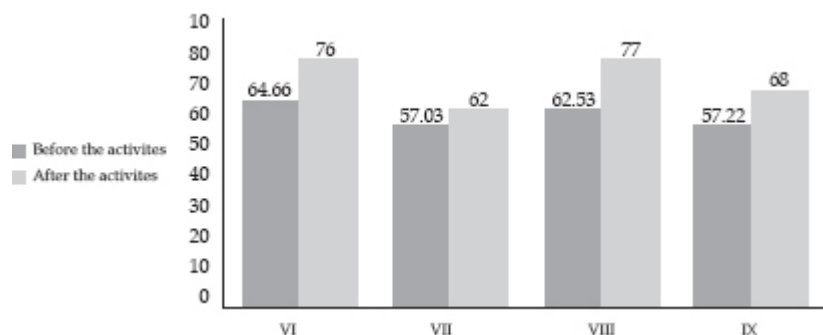
Performance Before and After the activities

TABLE 1

Performance of the students before and after the activities.

| Class Average | VI | VII | VIII | IX |
|-----------------------|-------|-------|-------|-------|
| Before the Activities | 64.66 | 57.03 | 62.53 | 57.22 |
| After the activities | 76 | 62 | 77 | 68 |

Graph 1 : Performance of the students before and after the activities.

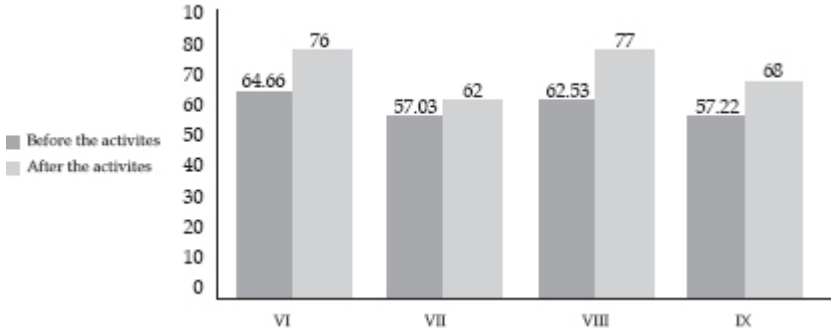


The table clearly shows that the performance of the students increased after the activities being conducted. In all the classes except class VII, the increase % was ranging from 17% to 23%.

The following table and graph shows the comparison of the highest scores and the lowest scores in the class.

TABLE 2

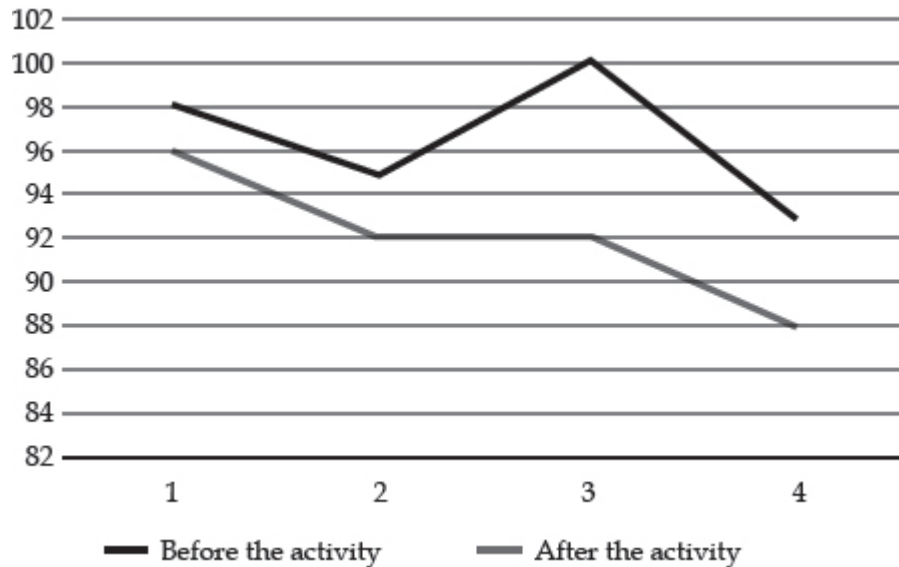
Comparison of the highest and the lowest mark



Graph 2: Highest score before and after the activities.

| Class | Highest Score | | Lowest Score | |
|-------|---------------------|--------------------|---------------------|--------------------|
| | Before the activity | After the activity | Before the activity | After the activity |
| VI | 96 | 98 | 16 | 52 |
| VII | 92 | 95 | 28 | 40 |
| VIII | 92 | 100 | 24 | 64 |
| IX | 88 | 93 | 16 | 52 |

Graph 3: Lowest score before and after the activities.



The above graphs clearly show that all these activities increased the performance levels of both the high as well as the low achievers. The improvement amongst the low achievers is noteworthy.

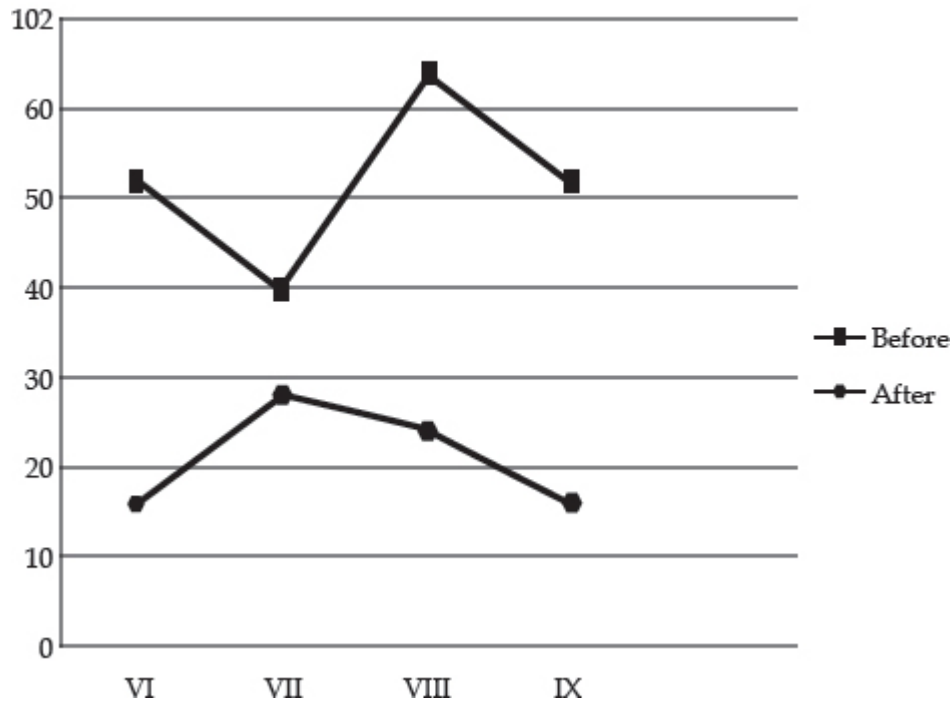
Thus the increase in the performance of the students clearly shows the effectiveness of all these activities.

CONCLUSION

Every year the department of Mathematics at Chinmaya International Residential School, comes with lot of fun filled Math Activities for the students by which they enjoy as well as learn. Initiatives like the Math Challenge are an ongoing process.

The initiatives taken have created a positive impact in the children. They feel more confident in approaching the subject. They have moved from the mindset that Mathematics is for scoring marks to Mathematics for life.

Graph 3: Lowest score before and after the activities.



The above graphs clearly show that all these activities increased the performance levels of both the high as well as the low achievers. The improvement amongst the low achievers is noteworthy. Thus the increase in the performance of the students clearly shows the effectiveness of all these activities.

CONCLUSION

Every year the department of Mathematics at Chinmaya International Residential School, comes with lot of full filled Math Activities for the students by which they enjoy as well as learn. Initiatives like the Math Challenge are an ongoing process. The initiatives taken have created a positive impact in the children. They feel more confident in approaching the subject. They have moved from the mindset that Mathematics is for scoring marks to Mathematics for life.

Making Maths Real

Meeta Manchanda

INTRODUCTION

Ineffective teaching led to inability to master simple and basic concepts which in turn were the cause for poor performance in mathematics.

Hence it was felt that teaching practices are the key to develop a positive attitude towards the subject.

CASE PRESENTATION

Identification of the problem

Poor performance of students in Maths

Increasing Math phobia

Number of students failing in Grade IX

Analysis of the problem

The problem was identified from various perspectives. Factors that led to the poor performance were:

Student-related factors which led to poor attitude towards Mathematics

- lack of concept clarity
- lack of interest as Mathematics seemed irrelevant in daily life
- inability to 'see' Mathematics
- lack of ability to discover varied problem solving approaches for a given problem
- inflexibility in applying procedures to different situations; could not generalise procedures and apply them to different contexts
- Mathematics phobia- reinforced by parents and the society

Teacher-related factors which were the key contributors to the problem

- teachers' fixed mindset that Math is abstract
- inappropriate teaching methods
- use of algorithmic approach and focus on drill and practice
- unequipped to cater to the diverse learning needs

Effective learning is dependent on a number of factors

- Nature of student learning activities done to teach a concept
- Activities planned keeping in mind all students with their diverse learning needs
- Amount and nature of engaged learning time experienced by students
- Engaging material; manipulatives, books and worksheets
- Learning environment of the classroom

Objectives

The following objectives were outlined

- To strengthen the foundations and conceptual understanding of the students by making Maths visual, tactile, multisensory and experiential in the teaching learning pedagogy
- To make a conscious move away from the algorithmic approach that renders Maths so abstract and thus limit students
- To make Maths accessible to all students, including all students with diverse needs
- To develop a positive attitude towards the subject by bringing out student's creativity during Math lessons so that they own the subject
- To reduce the stress away from learning so that the students enjoy Maths and love the subject
- To change the mindset of the teachers so that they move out of the traditional methods of teaching and incorporate experiential and innovative methods to make Maths classroom an exciting place

Planning Done

Providing training programs and workshops to the teachers to equip them with appropriate teaching techniques

A pilot phase was planned to implement the proposed strategies and to help teachers gain confidence in the newly acquired strategies.

Revamp curriculum and lesson plans content to suit diverse learning needs, strengthen the foundation and conceptual understanding of the students by making Math visual, tactile, multisensorial and experiential using manipulatives and not to focus on algorithmic approach

Transition to be made in phases across grades

Feedback from parents and teachers to be taken

Success Criteria

The following were the parameters for the success criteria:

Improved Result

Better students' engagement

Teacher satisfaction

Positive parental feedback

Implementation

With the promising results that the programme was yielding, the school administration decided to take a measured step to check the efficacy of adopting this new method of teaching Mathematics. With this aim, the Mathematics teachers were trained and asked to implement a few topics in their classes using this pedagogy in the first year.

The students were seen to grasp concepts more effectively. The teachers reported very positive results at the end of the year. A new curriculum was designed so that visual, tactile, multisensorial and experiential learning becomes an integral part of Math teaching. This would help develop metacognition and mathematical thinking.

Thus curriculum based on new strategies was finally adopted. To implement the curriculum to be in line with the goals, the following steps were taken:

Workshops for teachers

Recognizing the increasing need for teachers to gain a deeper understanding of the challenges faced by the students the school hosted teacher training workshops.

- Certificate Training Course in Teaching Mathematics in September 2013 which was conducted by the Maharashtra Dyslexia Association (MDA), Mumbai.
- A practical and pragmatic teacher training course by Prof. Steve Chinn, PhD in February 2016.
- The school conducted an online mentoring program- ECHO. It is a unique online teacher mentoring program which was conducted by two experts to provide online training to the teachers.

Lesson planning

The pedagogical approach and the instructional design of the curriculum was made with the overall objective of making math visual, tactile, multisensorial and experiential. A conscious effort was made to move away from the algorithmic approach.

Some specific aspects that were consciously incorporated while developing the curriculum are:

- Choosing concrete materials and using visual images for each concept to make learning multisensory
- Laying emphasis on introduction to Number Sense and Number Sense Development
- Multisensorial teaching techniques to develop conceptual and procedural understanding and pre-requisite skills
- Teaching specific strategies and guiding through self-monitoring checklists and ready reckoners to allow differentiation in teaching
- Doing error analysis of the work done by the students to identify the areas which need to be retaught or remediated

The lesson plans were designed with the emphasis on learning progressions where the teaching and learning outcomes were carefully sequenced.

Before introduction of a concept, worksheets or activities are done to recall and assess prior knowledge and pre-requisite skills.

Introduction of concepts is done through carefully designed activities which allows the student ample opportunity to discover the Mathematical concept. With ample scaffolding the concept is introduced carefully transitioning from the activity to application of the discovery to the concept. This correspondence is of extreme importance as it is later used for differentiation during teaching and making assignments for students who are at different levels of understanding of the topic.

In addition to the differentiation while teaching and doing assignments, scaffolding is provided by giving self-monitoring checklists and ready reckoners. If needed guided and differentiated worksheets are also provided for student facing difficulty.

Few highlights of the strategies used for teaching some specific concepts:

- **Number sense using ten frames and ganit mala**

To help students acquire early number sense and the concept of place value, ten frames and ganit mala are used. They learn to organise quantities around benchmark numbers. It helps them make their own mental images of numbers and develop strategies for mental calculations.

- **Subitising**

This number sense activity encourages students to see patterns. As students come up with variety of responses, they learn that a number can be composed and decomposed in many ways.

- **Blank number lines for numbers and fractions**

It is a great tool to reinforce number sense. Starting from ordering numbers on a number line to skip counting, which is a stepping stone to times tables. These are used to develop patterns for mental addition and subtraction. And also teach duration and elapse of time period.

- **Using number bond to learn number patterns and number relationships**

Once students become comfortable composing and decomposing numbers using ten frame and number lines, they are encouraged

to use this acquired skill to add and subtract numbers through visualisation. This gives them confidence and flexibility to handle numbers.

- **Place Value using Dienes blocks, place value mats and place value cards**

The student manipulate the dienes blocks to form numbers and number patterns. It gives them a strong conceptual foundation of number sense and the place value system.

- **Framer Model**

It is a graphic organiser which helps students to make connections between their prior knowledge and the new concept. It also helps the teacher to address misconceptions and develop new Maths vocabulary.

- **Using Story Books and Games**

Using games and stories infuses enthusiasm in the students. They look forward to the Maths sessions. It brings in an exciting element to the lessons and also helps them remember concepts better.

- **Venn diagrams to teach Highest Common Factor**

It helps students understand the concept of HCF through an engaging activity.

- **Fractions using Fraction kit and readily available material**

It is one of the concepts in which students heavily rely on algorithm. If the conceptual foundation is not clear, the misconceptions remain unaddressed leading to larger gaps as students move to higher grades. Hence a strong conceptual understanding is built through activities.

- **Reference sheets, graphic organisers, cue cards and self-monitoring checklists**

This Math strategy helps students having difficulty remembering formulae, concepts and steps involved while solving problems. It serves as a reference while the students are acquiring the skill and is faded off when mastery is achieved.

- **Integers and Algebra using Algebra tiles**

Algebra is an abstract concept and students face difficulty visualising the problems while solving them. Algebra tiles is a

powerful tool that helps them work using hands on material to add, subtract, multiply algebraic expressions. Students learn to factorise Algebraic expressions too using Algebra tiles!

Books adopted to be in line to the pedagogy

Books were adopted to complement the pedagogy of teaching Mathematics via problem solving.

Resources made easily available

Mini Resource centres were made in every class with the supply of educational material to enable students manipulate and learn through discovery. Smart notebooks were installed.

Apart from teacher made resources, the teachers and students were encouraged to use resources from daily life like:

- Calendars- for generating tables and least common multiples
- Paper plates - to study fractions

Resources were developed to provide differentiation of material.

- self-monitoring checklists
- cheat sheets (ready reckoners)
- guided and differentiated worksheets

In-service training programs for teachers

Teachers were guided while planning lessons to incorporate appropriate manipulatives suitable for teaching a particular concept, the starter activities to introduce a concept and design worksheets to help students apply their experiential learning to a given problem.

Teachers were also trained to use latest technology to make Maths more visual. Smart notebooks were introduced in the classrooms and the teachers were trained for it.

Parent Involvement Programs and workshops

For the success of any program, it is imperative to have all stakeholders on board and in consonance. Hence the parents being equal partners in the teaching- learning process were also equipped

with the strategies through workshops and Parent involvement programs.

Challenges faced in Implementation

The following challenges were faced during the implementation of the program:

- Changing the fixed mindset of the teachers
- Changing staff- new teachers had to be retaught the strategies and the pedagogy which was being followed
- Parents' fixed mindset at times posed hinderance as it clashed with the school's vision. The students at times had already been taught concepts and methods by tutors so to teach with the innovative strategies at times became difficult.

EVIDENCES OF SUCCESS

The students' keenness and engagement during the lessons is clearly visible. They grasp concepts better. Previous concepts are not required to be retaught hence retention is better. It has also evident from better results.

Encouraging Study of Math and Science in Rural Areas

RAJENDER KUMAR, NEELAM GUPTA & SANJEEV KUMAR

INTRODUCTION

The quality education in Mathematics and Science is still a great challenge to the Central and State Governments. The situation is not different in Himachal Pradesh also. The school started the project in 2013 and results were also satisfactory. It is our passion to provide quality education and finish the phobia of these subjects from the mind of the students of this rural area. Now, the school is well known for its various programs and innovations. But the journey is continuing.

CASE PRESENTATION

Challenging Situation

The school is situated in rural area of the district Solan and the parents of the students were not interested towards quality education of their kids. They are merely interested in passing the exam and completing high school or senior secondary school education. The students have no exposure competitions outside their school.

Analysis of the Situation

The parents of the students are deeply involved in agricultural work. They are not in a position to monitor their children regarding school education. They have no idea of investment in education and its outcome.

Objectives

- To attract the attention of people towards school activities.
- To motivate the students to study Mathematics and Science and prepare themselves for various competitions.

- To provide the State and National level platforms for students in Science and Mathematics.

Planning

- **Step 1:** Attention of the villagers kept towards school activities in Mathematics & Science through various programs like 'Swachh Bharat Abhiyaan', 'Disaster Management Awareness Campaign', 'Awareness about Biological Diversity', etc.
- **Step 2:** Involvement of the villagers in these programs along with their children.
- **Step 3:** Sparing extra time for students' activities in Science and Mathematics for deep understanding of the basic concepts and higher order skills.

IMPLEMENTATION

All the programmes included in the annual activity calendar of the school and implemented as per schedule. The teacher planned various activities and programs for students and community for increasing their interest in quality education and Mathematics/Science. The main innovative practices of the school initiated by Dr. Sanjeev Kumar are given as follows.

Door to door campaigning

The teacher visited the villages along with staff and most of the times alone to make people aware about the environment and swachhta. He motivated the parents to enroll their children in Govt. school. The school used the banners and ICT in this program.

Use of Activity Method of Teaching

The activity method of teaching Science and Mathematics is a continuous practice in school. The students understand the concepts deeply and also apply them in their domestic life. It helped them to increase their interest for the subjects and their phobia in learning these subjects is minimized.

Mathematics Quiz

This quiz is specially designed on activity based learning and executed in December - 2017. It is prepared to check the basic concepts of Mathematics and also give the knowledge to students. It has five rounds 'Definition Round', 'Tell the Formula Round', 'Maths in our daily life Round', 'Create and Make Round' and 'Find Unknown Round'. All the students participated from different schools enjoyed the quiz and learn basic concepts. The quiz was greatly appreciated by everyone.

Disaster Management Awareness Campaigns and Conservation of Environment Campaigns

The students made the villagers aware of the various disasters which that could occur in their surroundings and houses under the supervision of their mentor. They visited the sites also and observed the effect of the disasters. Students helped their parents to design and organise their homes according to disaster management practices. Four persons invited the engineers to modify their construction of houses and changed which is the achievement of the campaign. Also, students planted 370 trees on the hill where landslides occur every year. Now, the students are caring for these plants and 90% of the plants are have survived.

Organization of Mathematics and Science Stall in the Local Fair

The students of the school organized an exhibition of Mathematics/Science models and experiments in the local fair. They have also measured the height and weight of all of those who visited their stall. They conducted some experiments in the fair under the supervision of their teacher. Also, some Vedic Mathematics tricks performed by the students. All these created an enthusiasm for learning.

School Activity Calendar

The school activity calendar is prepared by the principal at his own cost in the winter vacation. It included all the activities of the school along with the pictures of the main events. The activities proposed by the Education department were also included. The pictures of the

achievers of the school were highlighted in the calendar. NCERT and State higher authorities lauded the effort. To create awareness during admission the calendar is distributed.

Use of ICT & Guest Talk by the Subject Experts

The teacher used ICT in his regular teaching to impart quality education to the students and remove the phobia of Mathematics and Science. The teacher has completed the 'Teaching of Science at Upper Primary Level' course of NCERT through online mode. The guest talks by the experts were also organized by Dr. Sanjeev Kumar to update the students. A positive difference was observed in the students through unit tests and annual exams along with the pan-Indian exams like National Merit - cum - Means Scholarship Exams.

School Magazine of Mathematics & Science

The school has printed a magazine 'Ramanujan: Mathematics & Science Magazine' in Hindi in which original articles of students are included. The students wrote about various scientists of India and abroad. They also wrote about Vedic Mathematics, scientific processes, biological diversity, etc. This 80 page magazine is printed with ISBN No. 978-93-88112-66-6 published by International Publisher - Akinik Publications, New Delhi.

Challenges faced in implementation

Some parents do not take interest in these activities, perhaps, busy in their agricultural work. There is no cooperation from local Gram Panchayats. There is lack of funds and most of the programs are executed by the program coordinator with his own money. It is a very lengthy process to take permission of the State Government. to implement any new program or practice. The school is situated in the rural area near the jungles with no motorable road connectivity. It is situated on the hill and everyone has to climb it on foot. The bazaar is 15 km from this place and limited bus services. So, there is always a challenge to make the proper arrangements for the programs and activities. There is no internet connectivity in the school. The

enrolment of the school is only 32 and there are 3 regular teachers. 2 posts are vacant. Man power is limited. The school has only three classroom, one headmaster room and one kitchen.

EVIDENCES OF SUCCESS

These practices resulted in remarkable achievements by the students especially in Mathematics and Science. The school has been included in the 'KHAAS SHIKSHA' by the Department of Elementary Education, H.P. Govt. Every year one or two students of the school got selected in National Merit - cum - Means Scholarship conducted by SCERT, Solan. The students also got succeed in other competitions, like State level painting on 'Energy Conservation' organized by Ministry of Power, Gol; State level Yoga Rashmi Competition organized by Department of Yoga Studies, H.P. University - Shimla and others. Three students of the school presented Vedic Mathematics and Abacus before the Hon'ble Education Minister of Himachal Pradesh. Shubham Anand Sharma of Class 7 has been selected three times for national events of Science, viz. 9 Indian Science Congress (Career Point University - Hamirpur) in April, 2018; International Biological Diversity Day celebration at Hyderabad in May, 2018 and 2nd National Science Techno Fair - 2018 at Surendranagar, Ahmedabad in September, 2018. I am proud to state that this student has been selected for the 8th International Science Congress to be held at Maharishi Markandeshwar University - Mullana, Ambala in December, 2018.

BENEFICIARY SATISFACTION

The students are the beneficiaries of this case study. All the parents and guardians are very satisfied with the performance of their children. They had never envisioned such. But, the hard work of staff members especially Dr. Sanjeev Kumar is credited for the grand success of the school.

CONCLUDING REMARKS

Presently, the Government school education is not preferred by the parents even in villages or rural areas. But, Dr. Sanjeev Kumar of GMS Rugra has been very successful in gaining the confidence of parents. He has provided high level platforms to these students. He has spared his valuable time and money as well to train these students to perform at these levels. He has achieved the targeted objectives of this case study. Dr. Sanjeev Kumar is an example to others. Being 'Physically Handicapped' in his right leg (45%), he has disbursed his duties honestly and the results are visible everywhere. He has worked with limited resources but, produced achievers in this school.

Bagless School : No Homework

SARDAR JADHAV, MARUTI KAMBALE & SAGAR PHARANDE

INTRODUCTION

“The education of even a small child does not aim at preparing him for school, but for life.” How true! Childhood is a time to learn, and have fun. Academics should not overshadow health. Carrying a larger-than-required school bag puts an unnecessary strain on the child’s back, affecting their musculoskeletal system adversely—specially if the bag is carried by a single strap on one shoulder.

India has a great tradition of Gurukul Education System where the disciples were free to chase their aspirations in a tension free atmosphere. They were taught by great sages in the lap of nature keeping the imagination and curiosity of the learner free of any burden. As changed, so did the education system. The students were found carrying the heavy loads of school bags on their backs that caused tremendous physical and mental stress.

Deeply grieved by this the school came up with unique ideas of ‘Bagless Education’ and ‘No Homework at Home’. This proved to be a great boon to all the students, parents and teachers. The burden from the delicate shoulders was shifted from students to the classrooms giving liberty to the learners to spend quality time with their family and friends.

CASE PRESENTATION

The Children’s School Bags (Limitation on Weight), Bill of 2006 states that the weight of a school bag must not exceed more than 10% of the child’s bodyweight. It also directs respective state governments to ensure that schools provide lockers for the students, ensure that schools adhere to the standards of measurements for bags and students use both straps for carrying bags.

There is ample statistical data available that estimates 68% of pre-teen Indian school children might suffer from mild back pain, which can develop into chronic back pain and a hunch. In addition, various surveys have noted that over 88% of the children, in the age group of 7-13, carry more than 45% of their weight on their backs in the form of school bags. The findings also indicate that most students mandatorily carry over 15 to 20 textbooks and notebooks daily, together with sports kits and other equipment. The scientific study says that children aged 8-15 should not carry more than a 3 kg weight on their back because it affects their spines which are yet to develop fully.

Analysis of the problem

The Principal made a detailed analytical study of this major concern. He strongly believed that school needs to be a fun, enriching environment. Summarized hand-outs of textbook concepts keep the students load-free, literally and also allows them to concentrate on the concept at hand. For example, if they are learning about collective nouns one day, why carry the entire grammar book and the language notebook that day?

A detailed planning for the reduction of the school bag weight was done with all possible facts and problems that it might cause. Meetings of the school management were conducted, debating and discussing minute things. Such a revolutionary concept does not materialize overnight. It needs proper planning and execution of the same. Of course the implementation of such an innovative concept is not an easy task. Guidance to the students, parents and teachers alike must be provided.

Objectives

1. To bring relief to the tender shoulders
2. To promote physical growth
3. To reduce spinal problems
4. To develop good body posture
5. To give a joyful learning experience

Planning done

Students and teachers will be trained about the practical implementation of the core concepts of 'Bagless Education' and 'No Homework at Home'

Parents will be informed in a specially scheduled orientation session.

- The set of textbooks will be kept in the school itself in the cabinets provided.
- Workbooks and notebooks are replaced by loose sheets.
- Worksheets of each subject will have a different colour.
- Subject worksheets will be maintained in separate files.
- All the worksheets will have the basic information of the student such as Name, Grade, Division, Roll No, Date, Worksheet No, Student's, Parent's, Teacher's signature etc.
- The homework that is to be done will be completed in the school itself at the end of the day under the supervision of teachers.
- All the subject files will be kept in the classroom in a separate cabinet provided to each student. (under lock and key)
- Completed worksheets will be sent home daily for parent's acknowledgement in a file.
- The contents of the school bag are A Collected File, A School Diary and a pencil box.
- The weight of the school bag is not more than 500 grams.
- Bagless Education is applicable from Grade 1 to 8.
- All subject files will be sent home for detailed revision before Half Yearly and Annual Exam.

Success Criteria and possible alternatives decided

Success Criteria -100%

Possible alternatives decided-

A thorough plan was made.

The school bag was weighed again and again to make sure its weight doesn't exceed more than 500 grams.

Parents' orientation with practical demo of file management.

File management will be crucial and confusing task initially but can be resolved easily with sufficient practice.

IMPLEMENTATION

All the students and teachers were trained about the practical implementation of the concepts of 'Bagless Education' and 'No Homework at Home'.

Parents were convinced and briefed about the same.

A set of files including Subject Files, Test File, Collated File was provided to the students.

Each subject worksheet colours were specified such as English-Orange, Hindi-Green, Sanskrit and Marathi-Blue, Maths-Yellow, Science-Pink, Social Studies-Light Grey, Computer-Dark Grey.

The homework that is to be done at home is planned well and is easily completed in the school itself at the end of the day under supervision of teachers.

The completed homework and class work is sent home daily in the collective file for parent's acknowledgement.

Specially designed cabinets for each student with a facility of lock and key, and name sticker were brought to the classrooms.

A set of textbooks was kept in the school itself in the cabinets provided.

Parents may use another set of books / PDF books / E books/Mobile App for the revision or extra studies at home.

The weight of school bag is checked regularly during the school hours.

The Subject HODs and Section Coordinators make sure the smooth functioning of the File Management and suggest remedies in case of confusion (if any).

Challenges faced in implementation-

Sometimes students carry the Subject Files home by mistake.

At times parents make photocopies of the worksheets sent home along with the students for acknowledgement.

Some parents still believe in the traditional method of notebooks and textbooks to be carried in the school bag.

CONCLUDING REMARKS

Sou. Vijayadevi Yadav English Medium School, Peth Vadgaon has motto is to create excellence and create lifelong learners. “Bagless Education” and “No Homework at Home” is an innovative step taken by the school much before the government makes it compulsory for the schools to take initiative to reduce the burden of students. All the children are enjoying the learning process due to this unique endeavour. We are practising these policies since last three years successfully.

This and many such initiatives make the school Special in achieving its vision to unify the whole world as one family so as to emerge as cultured, responsive, creative and successful global citizens.

Inculcating the Habit of Reading

JHARNA ANAND, RASHMI AGGARWAL & MANSI TAYAL

INTRODUCTION

The study is based on reading strategies and plans adopted by educators of a privately owned school of Delhi- Maharaja Agarsain Public School. The target group was around 150 students of 5-14 years studying in classes 1-9. The changing nature of education demanded a shift in pedagogical styles and patterns, change in attitudes of both teacher and the taught and identifying reading as the key issue which can bring all the difference. The project was started with a smaller group of students and we are planning to take it off as a mainstream project for the whole school in the coming months. This case study serves as a guide to the steps taken by our school to imbibe reading as one of the key focus area of our curriculum. More importantly, it breaks down the different components that go into creating a successful reading project and bringing it to its true colours of implementation.

CASE PRESENTATION

Teachers at maps always do a year end review of the results. From the last review, teachers found out that key area where the students need to work is comprehension. The students who could not comprehend, did not perform well in other subject areas apart from English. So, the analysis led to understanding of a larger key area which needs to be worked on in order to help students gain better comprehension skills i.e. reading.

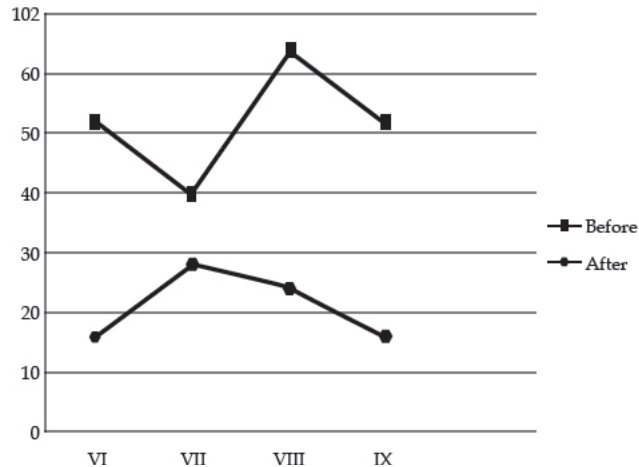
Another challenge we faced was establishing faith of other subject teachers that we need to tap reading in order to improve academic results of all other subjects. Our trust that reading will improve comprehension skills and hence will help the child to improve the understanding of all subject domains needed to be successfully passed down to all subject teachers so that they are willingly involved and give their input in this aspect.

Our third major challenge was to manage time for both teachers and students as a major change needed to be made in the time table, as well as the schedule of the teachers.

Analysis of the problem

After analyzing the problem, the need was to identify the reading levels of the students so that level-appropriate help could be provided to them. As a diagnostic step, FAST reading assessments were opted for. FAST is an indigenous and scientifically robust online, diagnostic assessment tool developed for children in grades 2-9. It tests children's meaning making (comprehension) and word use fluency (vocabulary) at various degrees of complexity. The assessments took place in the bracket window of 17-09-18 to 27-09-18. The reports provided then helped us to identify the students.

Learners were then characterized into excellent, average and below average readers based on the report results. The analysis is as follows-



| READERS ANALYSIS | | | |
|------------------|-------------------|-----------------|--------------------|
| Class | Excellent readers | Average readers | Struggling readers |
| CAM 2 | 12 | | 06 |
| CAM 3 | 8 | 6 | 0 |
| CAM 4 | 2 | 9 | 6 |
| CAM 5 | 4 | 5 | 12 |

Along with this, teachers undertook a major project in collaboration with Echo India. The ECHO Model is a mentorship model which uses video conferencing technology. Project ECHO works for capacity building of teachers as it believes that the quality of teachers is the single most important factor that affects student performance all other factors (economic status, private vs. public schooling, urban vs. rural, medium of instruction etc.) being equal. The four major focus areas are- Phonological awareness, Vocabulary, Fluency, and Comprehension.

The team conducted pre-tests of the students to identify the reading levels of the students. The data helped us to identify struggling readers who needed special intervention in terms of reading and writing.

Objectives

To enhance reading skills of the students (skimming, scanning, predicting, and reading for detailed comprehension, reading to develop critical thinking skills)

To engage struggling readers in reading and academic learning by setting up a reading culture where students read for pleasure.

To provide innovative pedagogical methods, best practice guidelines, and strategies towards systemic use of ICT for reading promotion.

To empower all stakeholders and encourage them to take active part in reading which will help in enhancing learners' reading attitudes, reading engagement and reading skills.

To move the development phase from LEARN TO READ (primary grades) to READ TO LEARN (lower secondary grades)

Preparation and Planning done

To keep us on track and organized, it was necessary that we pen down the steps we will be following and first understand the structure and intricacies ourselves. So, all teachers discussed reading strategies for the reading project. The discussions involved many circle times from which priority actions emerged. It was decided that reading should permeate the cross curricular boundaries so that overall growth of the child's skills and academic results can be improved.

Teachers were provided with 30 minutes daily for one month to read The Joy of Reading HandBook in the morning just before the prayer. It provided as a take-off for us which had no looking back. This book

motivated us to plan a reading project for enhancement of reading skills of all the students.

The next step was to enrich the staff to create a broad range of learning opportunities designed to promote high levels of achievement, creative productivity, motivation, and respect for the uniqueness of each student. This step was necessary so that the educators are empowered to believe in their strengths.

For the same, training of the teachers was done using different platforms

Echo mentoring sessions- ECHO served as a platform which helped the teachers in their continuous professional development. MAPS teachers were provided with in-service training where they collaborated with a community of teachers. Teachers were trained in terms of pedagogical techniques, strategic plans, setting up of objectives etc. based on development of language areas.

The faculty from varied departments (Maths, Science, ICT, English) of MAPS also visited DIDAC INDIA and attended workshops related to reading organised by Scholastic -Reading For Pleasure. The workshop helped the teachers to gain faith in reading for academic progress in cross-curricular areas. DIDAC INDIA is the only event in the Asia Pacific region for Educational Resources, Training and Technology-based solutions for all levels and sectors of the Education and Training sector.

https://drive.google.com/file/d/0Bxf4hS_HgbfBUDdSUHFUZG9JTVE2VnF1cVYwdGotVmZrWm1B/viewusp=sharing

The pivot points of our planning are captured through these two illustrations in brief

Success criteria and possible alternatives decided

The following points were taken as measuring tools for success:

- Maintenance of a well-structured class library wherein quality of books was maintained by learners themselves. The books were handpicked and contributed for the library by them.
- Improvement in readings skills and exam performance
- Set up of reading culture through a project- 20 for 20 family reading challenge. The students and the parents took the challenge to read 20 minutes daily for 20 days. The aim was to raise readers who witness reading as a habit and not something which is forced on them. The project focuses on bringing all the stakeholders in one loop, who work together towards this common goal.
- Integration of ICT tools into the teaching and learning. Some of the steps taken were- FAST online assessment, online book talks, skype calls during MTSLs project, sending online reading assignments using free online reading websites and tools available example- OXFORD OWL (www.oxfordowl.co.uk), READWORKS.ORG (www.readworks.org)
- Teachers are well trained having a common vision and goal in mind, motivated to work in common direction.

IMPLEMENTATION

The implementation took place at various platforms Platform A) Collaboration of the school with another country- Using story champs with the students- We realised that to improve reading, learners must be tapped from the primary years only. To help students become better readers, they should be better listeners and speakers first, so we worked on listening and speaking which are pre-requisite for reading. Students were trained and told stories using story icons and story champ sheets, striving to make them better readers.

Platform B) Collaboration of the school and parents- Implementing 20 for 20 challenge- The project RAISING READERS, was initiated by an orientation of parents. Parents, who are considered as stakeholders, were told the importance of reading by the students. The challenge for reading for 20 minutes for 20 days was taken the parents and students both at the home and the classroom.

Few glimpses after the initiation of the project-the challenge begins... - the teacher and the taught reading together.

Platform C) Exposure to different reading strategies- Under the International School Award (ISA) programme run by British Council Division through our international collaborative projects, students

were exposed to various reading strategies. Each class picked up one reading strategy to read content related to the project. Some of the examples are-

| CAM 6 | 7 | 3 | 3 |
|-----------------|-----------------------|---|---|
| CAM 7 | 3 | 1 | 4 |
| CAM 8 | 3 | 3 | 1 |
| CAM 9 | 3 | 0 | 0 |
| Class | Theme of the assembly | Reading strategy used | |
| CAM 1 | Global friends | Read and express (using illustrations and visualization) | |
| CAM 2 | How to greet people | | |
| CAM 3 and CAM 4 | Positive attitude | 3-2-1 strategy Finding 3 interesting things/ three new words, 2 new learnings, 1 question which is still in your mind | |
| CAM 5 | Reading Assemblies | Literature circle, Book talk videos | |

Link to see our Approved ISA Plan - Let's Make Assemblies Better (COLLABORATIVE PROJECT)

https://drive.google.com/file/d/0Bxf4hS_HgbfBbU81UnITNkZaR3p0VEJmdjINa3c4QjNHUi1Z/view?usp=sharing

Under ISA Project- Let's make Assemblies better, students of Class 5 visited virtually a school library in USA. The skype session with the elementary school, Fort Thomas USA on 20th September, was very enriching. Students enjoyed skyping with the students of USA and learnt a lot about their culture. Many different tasks and activities related to reading were discussed.

Platform D) Reading as a part of academics: to develop serious attitude in students towards reading, we started weekend reading stories. The reading and understanding were assessed through extensive reading assessments. The assessments were prepared in such a way that they didn't bind the students to some particular stories rather allowed the students to choose stories to answer the questions.

Click the link for more extensive reading assessment sheets.
<https://drive.google.com/drive/folders/1X461kUST3MNFN66VP3dW1FjGVifag5sB?usp=sharing>

Platform E) Keeping track and the follow up of reading. Some major decisions taken by higher authorities to keep an eye on each child's reading habits and making reading habit their priority, a special page was added as a reading log page in our Almanac- the school's diary.

Platform F) The workshop model of initiating into reading for pleasure: an attempt was made to initiate students into reading for pleasure in a workshop mode. A two days reading workshop- 'Story Ghar' was conducted for lower secondary students. Workshop like settings pave a way for more group discussions, enhancing critical reading, student leading the learning process and liberates the teacher and the learner from the limit of time, thus, creating a more collaborative and engaging environment in the classroom.

Visit this link for full PPT of STORY GHAR-
<https://docs.google.com/presentation/d/1164VbBE9HPf4KNzcBtpHNEJNLXPnXhWdLpuFcVcYuf8/edit?usp=sharing>

Challenges faced in implementation

The major challenge we faced was management of time. The number of hours students spend at school are limited and we had to use this limited time to incorporate reading in it. To overcome this, we modified the students as well as teacher's time table incorporating 20 minutes everyday for planning in the initial phase and reading in the latter. Also, shortening of morning assemblies was again a major step taken.

In the initial phase, it was difficult to make both parents and students understand the importance of reading. Home assignments related to reading were not taken seriously. Time devoted to reading was negligible and wasn't considered to be important. To overcome this, reading assignments were choice based. Badges were provided to students to motivate them. Positive feedbacks were provided to students.

Another major challenge was bringing parents out of their comfort zones to become a part of their child's reading success story. Also, permeating the boundaries between home and school, establishing stronger grounds for home-school partnership. For this, parent's orientation programmes were organized.

EVIDENCES OF SUCCESS

Mail from Ms. Brenna Scadden, researcher, MTSLs project, Brigham University on her viewpoints regarding progress in MAPS students.

https://drive.google.com/file/d/0Bxf4hS_HgbfBQXQ1enF5S05vdmVVYIFQU0pLV1gxSnRqcTRB/view?usp=sharing

<https://drive.google.com/drive/folders/1pRWECwezK0DDq3gPKdxJG0cf7utS5RI?usp=sharing>

Fast assessment result snapshot

https://drive.google.com/file/d/0Bxf4hS_HgbfBQnNSZG9FYWZnYTByWW1qQ3dUWjRxMDR4ZjVr/view?usp=sharing

Promotion of the project by a parent on social media site- whatsapp

Student's feedback- benefit they received from the project https://drive.google.com/open?id=1wGrFM2gV5SPr9TTAz_IKU4UAYN8GiN9N

BENEFICIARY SATISFACTION

It's too early to collect the data, though, it has been observed that student's social behaviour has changed. A shift can be seen in attitude related to reading. The status of taking reading for granted is now replaced with joyful and pleasurable reading. Instructions by the teachers need not to be repeated quite often now.

Students achieved better reading skills, followed by better academic results. They have shown better performance in reading assessments. Students shared their learnings and experiences with the parents in the orientation session.

Parents showed their interest in our reading programme and committed to be part of our Raising Readers project. They admired the organised goal oriented efforts of school authorities, teachers and students. They were impressed by students' progress and presentation given by them to explain about Raising Readers project. Parents and students participated well in the reading activities organized on the orientation day of the project.

Reading Badges were distributed to boost their confidence and motivation level.

Teachers are now empowered with better resources and innovative, organised centralised goal based strategic plan to execute with a great success.

CONCLUDING REMARKS

Innovative strategies for inculcating habit of reading among children based on research, diagnostic study, assessments, teachers' professional developments will bring a huge success. Readers (The 20 for 20 Family Reading Challenge), classroom libraries, keeping track of each child's progress in terms of skill enhancement, organizations of Special Reading based activities like book talk shows, story presentations, enactments, authors visits, book fair visits and motivating the students by giving token of appreciations was done. MAPS Team is now more enthusiastic and resourceful to get the desired results and take this project to new heights. All stakeholders be it teachers, parents, learners themselves have tried to promote reading. The idea is also to project this reading project as a pleasurable.

Empowering the Educator

SR KRIPA MARIA

INTRODUCTION

In the educational context of India, many private schools are facing challenges with respect to empowerment of staff through extra training for professional development. Time constraints, finance, and leadership style are decisive factors with respect to continuous professional development (Mollykutty, 2017). Lack of teacher training and continuous staff development are raising challenges in different countries (UNICEF, 2000). To get sufficiently trained teachers and providing them in-service programmes are found great challenges in Science education (UNESCO, 2009).

In an educational institution the responsibility and commitment of a teacher is not confined in teaching of subjects but in the process of self-development, development and formation of students by imparting values and above all in the commitment to the society in which one lives and also to the whole world at large. To enable and support teachers for this great responsibility is the duty of the school leadership.

OBJECTIVES

To identify the impact of the empowerment programme given to the principals with regard to personal development and school improvement.

To identify the impact of the empowerment programme given to the trainer teachers with regard to personal efficacy and peer empowerment.

To identify the impact of the empowerment programme given to the teachers by the peer teachers.

To search the identifiable evidences of the empowerment programme given to the teachers by the peer teachers.

To suggest an effective teacher empowerment model to all average income group private schools.

CASE PRESENTATION

The process of staff empowerment and professional development are very much related with the nature of the leadership. Personal guidance, entrusting responsibilities as per the talents of the staff, right mentoring, encouragement, environment of trust and timely support promote the staff empowerment and professionalism (Mollykutty, 2017). Training, assessment and regular supportive programmes are essential to staff empowerment and their professional growth. Teacher empowerment programmes and collective actualisation of school vision are dependent on empowerment level of the school heads (Wall, 2012). Employees' overall awareness of being esteemed and cared for produce positive impact a faculty's sincere involvement in the institution, without any expectation of incentive or appreciation (Holliman, 2012).

Though some studies show that teachers were meaningfully empowered in certain practices, principles, and involvements, they observed that they were not fully empowered in the process of exercise of staff leadership, decision-making and professional development. In order to bring about positive changes in the schools, it is essential to form empowered settings. According to Hoyer (2011), empowering teachers had been made sweeping changes in the field of education system. Empowerment has transformed a teacher's attitude of working with his/her principal in contrast to working for the principal (Archer, 2014).

There is a direct link between empowerment and job satisfaction. It is also related to professional growth, organizational commitment and teaching effectiveness. When a teacher is empowered, he/ she tries the best to widen the knowledge and teaching skills (Archer, 2014). Providing opportunities for developing self-confidence and

self-esteem are very important in the process of teacher empowerment.

ISSUES TO BE RESOLVED

From the direct experience of fifty teachers of ten private schools from North, South, East, West and Central parts of India during the research study using the qualitative study techniques, the following problems were identified:

There are less empowerment programmes arranged by private schools, due to lack of funds and poor leadership traits of principals

Teachers long for more leadership participation and training

Self-esteem and self-confidence of teachers could be increased by providing opportunities to present and organize programmes for peer-teachers

Having perceived these realities through the direct interaction and involvement with fifty teachers during the research studies as well as from the literature, the researcher had initiated some school empowerment programmes as soon as the new appointment was given to her. This research paper tries to analyze the effect of the programme in the areas of empowerment of principals and trainer teachers with regard to self-efficacy and confidence, empowerment of peer teachers and impact of the programme in the life of students.

PLANNING

Four fold planning had been done to design and execute and staff empowerment programme. The first attempt was to identify the area and content of the training, and it was done with the help of some experts. Thereafter a team of four expert educators prepared the material for training and expedite the matter within three months. Information was given to selected schools of India and training sessions conducted for them. Material was given to each participant. Thereafter a team of eight teachers from three different schools were formed for MP and Odisha, and special training was given to them. All teachers of a group of schools were given value imparting

sessions by the selected and trained team of teachers. Also opportunities are given to teachers to attend courses and empowerment programmes at various places, and they are asked to impart the training to other teachers. Even teachers are regularly given chances to empower by themselves giving weekly classes to their colleagues.

Realizing the various problems of the students and inability of one or two counsellors to provide counselling to all students who are in need, a new area of training of teachers is identified: to impart counselling skills. With the help of an expert team from Kolkata, forty two teachers of five schools have been trained and the process is continuing for the next six schools, which will be completed by 2020 February.

In this study three trained principals, and seven teachers of MP and Odisha were interviewed personally or telephonically and the findings are summarised and being analysed using content analysis and the details as follows:

ANALYSIS

Understanding of Empowerment

The first attempt of the researcher was to find out the perception of teachers regarding teacher empowerment. The question is 'What is your understanding about teacher empowerment?'

As per the perception of teachers, empowerment is a strengthening and helping process. It enhances skills, increases knowledge and develops competence. Empowerment of staff is very increases the academic enhancement of the institution. To another respondent, "to empower a teacher is to empower the students and school and in return it empowers the society." It enhances the dedication and willingness of the teachers to carry out their jobs in an efficient and cordial manner and it is an essential instrument for quality education and for social transformation, expressed another teacher from her personal experience. "Teacher empowerment is essential for quality education and social transformation. It aims at

improving the professional preparedness, dedication and willingness of the teachers to carry out their jobs”, added one of the teachers.

Another important view surfaces ‘teacher empowerment is the result of personal effort’. It is a very practical dimension of empowerment, which inspires a teacher to work for her own empowerment and professional development irrespective of the institutional contributions. Five respondents highlighted the personal responsibility to work for one’s own upliftment, job satisfaction and empowerment. One of the respondents added that the ability to work for self-empowerment is an innate quality of a person within quality. Most of the respondents explained how empowerment takes place through experience of mutual support of colleagues. All participants of the study shared their experience of empowerment through the support of peer teachers.

The importance of the role of the institution and management was also showcased by the participants of the study. Arranging seminars, training sessions, give encouragement and freedom to do experiments, provide opportunities to conduct sessions for peers are some the points mentioned.

Experience of empowerment of trainees

Here the second part analyses how the training programme given by the researcher to the trainees affected their personal teaching career as well as in training other peer teachers. So the second question was:

In what way the training given to you on value integrated teaching training helped in empowering (a) you personally (b) for the empowerment of teachers of your school?

The responses show that the training programme given to enabled the participants to transfer values not only through value education classes but also to incorporate with every subject. Some responses are as follows:

Training on value integrated teaching provided me with a wonderful opportunity and experience to get trained with the learned fraternity across the country. The pilot project initiated by the

management on 'Value Integrated Education' is commendable and had a deep impact on me. It widened my horizon of incorporating value based teaching methodology on a daily basis.

It was for the first time such a collective effort was taken by the management to empower the principals and teachers and to empower other teachers and students in turn through them. It was a highly appreciable effort. But in the beginning, all wondered if all principals or selected teachers could do it effectively? If peer teachers would accept it. but when we started seriously, all were happy and teachers were very cooperative, I found. This programme increased our self-confidence.

Counselling Training

The next area of interest was about the effect of counselling training offered to teachers. Counselling training was the third attempt of the researcher to empower her staff members. It was highly appreciated by the expert team that teachers of nearby schools also included for the empowerment programmes organised by the school of the researcher.

The question given to identify the perception and experience of the participants of counselling training. 'In what way the training given to you on counselling training helped in empowering (a) you personally (b) for the empowerment of teachers of your school? Three observations of the participants who completed the programme last during 2018-19 are added here which read as follows:

I joined the school 25 years ago. I was very interested in helping students personally. But this is the first time the school made a collective effort to train a team of teachers in counselling. It helped us very much. I can tell very confidently that we do not send problematic students to principal, as we were doing early. I am trying my best to help student on campus and off campus.

I was a timid person, but now I am able to handle lots of issues with confidence and precision. I got a lot of practical knowledge and opportunity to apply my learning. The school made me a highly empowered person, who is now able to help not only students, but

also colleagues and parents. I am very much thankful to the principal and management.

Enabling a teacher to do her best is empowerment according to me. It includes, training, providing opportunity, freedom, understanding, and encouragement. School and management play very important role in this process.

Though the selected interviewees claims the success, the real success of the programme lies in the personal attempts of every teacher in value integrated teaching as well as in counselling.

Empowerment through the Empowered

The fourth attempt in the staff empowerment programme by the researcher was to provide opportunities to transfer the learning experience of teachers who attended various empowerment sessions. It made them experts and increased their self-confidence and job satisfaction. The experience of a teacher as follows:

When I was given the opportunity to attend the computer training sessions arranged by the Board, I was instructed by the principal to give the same classes to other computer teachers of two schools, when I come back. I was very enthusiastic all through the sessions, learned, noted points and asked the resource person for PPTs of the class. Thus I came prepared thoroughly to give classes to my colleagues. It was a new experience for me. I can tell you that if you had not asked me to take the class, I would never have been so involved in my classes.

The researcher encountered another principal of another school, who gave an opportunity to every teacher of the school to present sessions for the other teachers of the school on Saturdays. In turn all teachers get opportunities to present classes. It empowers teachers in various ways. In updating themselves, to increase their self-image and self-confidence, to avoid stage fear, and to impart knowledge to others. It is a wonderful internal platform for staff empowerment and professional development. "Teachers could be utilised through opportunities such as being a presenter at educator workshops and

conventions” observes Short, (1994). They become effective instruments of change.

RESOURCES INVOLVED

Experts to guide in preparing content and material, finance, time, and places to organize the programme

EVIDENCES OF SUCCESS

The success of the programme viewed by the participants can be summarized as given below:

During the training session, every teacher of our school, right from K.G to Class 12th got the opportunity to conduct micro- teaching in their allotted groups incorporating values in their lesson plan. That indeed paved way to transform their classrooms into a dynamic pupil-centered learning environment.

The programme has been successful because it has changed the outlook of the teachers and has brought about professional development. Now the concept of teaching has widened its horizon. Student centred teaching is focussed and teachers are working to develop the overall personality of the students and this has led to the formation of mutual trust.

The training programme has increased the efficiency of the teachers. Due to this there was a positive impact on the students and they improved academically and socially.

Teachers are now incorporating value based concepts in their lesson plans. Better class room management is now making the teaching and learning process more innovative and interesting. Teachers are now bringing about best practices of teaching and learning for moulding the students in the best possible way.

Many teachers consciously try to integrate values in their classes, observed by the participants, as shown by one participant: “Value integrated teaching helped me personally as well as the teachers of the school. But it’s a collaborative effort to make it practical.”

1. Eight teachers from three schools gave value integrated training to teachers of six English medium schools and 3 Hindi medium schools.

Teachers of MP and Odisha are linking their subject matter of teaching with moral values to impart value education and they are incorporating this through their daily lesson plans.

2. Students present their spiritual and moral understandings through skits and stage plays in the morning assembly.

3. Teachers who were given counselling training understand students better.

4. Testimonies of the principals

5. Testimonies of the teachers

6. Inspection report

CONCLUSION

Empower through the empowered is an inspiring and acceptable and tested model for empowerment of staff and students of various schools, shows the study. Empowering teachers is the need of the hour because a well-trained and informed teacher can easily bring about innovative changes in and outside the classroom. This practice has brought about remarkable changes in the behavioural pattern of teachers, students and parents. Thus a model is formulated for staff empowerment of schools.

Water Bell

SHAMEER GAZALI & KHALID

INTRODUCTION

Water is an essential element in our daily lives. Most are too lazy to drink enough water and so are the kids. Most of the students forget to drink water during the school time. As a result, many students are suffering from minor health problems to the most serious health issues like irritability, anemia, kidney stone etc. Due to these problems, a project 'Water Bell Programme' was conceived. A water bell was introduced to remind students and staff to drink water. Water bell rings thrice a day, five minutes prior to morning and evening intervals and the lunch break. At that time, all the students and staff of the school will drink enough water.

CASE PRESENTATION

Identification of the problem/ challenging situation/ issue to be resolved

- Resolve the problems that are caused by the lack of water in children.
- Create a physical awakening

Analysis of the problem

A team of teachers was assigned a study to find out the reasons behind the students' tiredness and health issues. From their study, it was observed that the students who did not drink enough water are usually exhausted and don't take interest in their studies.

Objectives

- To encourage children to drink plenty of water.
- To make children aware about the illness or diseases caused by lack of water in the body.

- To make students healthy.

Planning done

- Staff meeting was called by the principal to appoint a teacher in charge for this project.
- Arranged a special bell system.
- Bell schedule was fixed. The bell would ring thrice a day, five minutes prior to morning and evening intervals and the lunch break.
- Conducted awareness lectures regarding the need of drinking enough water among the students.
- Instructions were given to parents regarding this programme.
- Arranged the facility for refilling of water bottles of students.

Success criteria and possible alternatives decided

This new venture would not be a failure. Since teachers were there in the classrooms at the time of each bell to ensure each student drinks enough water.

IMPLEMENTATION

The school principal inaugurated the water bell project with full support and cooperation of students, teachers and parents.

For this new project, a special bell system was arranged wherein the bell rang thrice a day, five minutes prior to morning and evening intervals and lunch break. So at that time everyone drank water. Also the facility for refilling of water bottles of students was arranged.

Challenges faced in implementation

Some difficulties were faced while implementing this new project among the students like

- Some children did not bring water.
- Initially, as a newly launched scheme, there was some kind of problem regarding the bell timing.

Resources involved

- Kettles
- Water bottles
- Jugs
- Hot water
- Glasses

The Morning Assembly

G J URANKAR & S GAYATHRI

INTRODUCTION

I pick to narrate our 'Morning Assembly proceedings' as our best practice at Rashtriya Military School Bengaluru. Rashtriya Military School Bengaluru is a residential public school, with the strength of approximately 400 students. Our daily morning assembly is a time well spent in the first 30 minutes of a working day. The assembly spans variety of topics, ensures cross sectional participation and delivers a strong message to the school.

Context/Background for the case study

We aspire to develop presentation, reading and oratory skills in students. Our grooming effort target all-round personality development in the formative years of the students. Students in our school are predominantly, the wards of defence personals, coming from humble family backgrounds from rural areas of the Hindi speaking belt in India. The school aims to prepare them to join Indian defence forces as officers by inculcating "Officer Like Qualities" in them, by fine tuning the capabilities of HEAD, HEART AND HAND.

CASE PRESENTATION

Identification of the problem/challenging situation/issue to be resolved

We need to adopt ways and means to fine tune communication skills as well as awareness through formal and non-formal means. Our endeavour needs to be a continuous and comprehensive. Each students and each teacher should have a role to play on a daily basis, by turns. Students' motivation and abundant proactive support need to be emphasised.

Analysis of the problem

Student excellence is a comprehensive concept. Our students are not exposed to English before class 6 in a big way. But in class 6 they are taught in English medium. The students also need to come to the stage and prove themselves as good communicators. Development of language skills and general awareness needs utmost attention. Skills are not demonstrated as an outcome of preparations spanning 24-hours or a fortnight. Excellence needs to be achieved by design, not by default. House masters, House tutors and House appointments need opportunities to purposefully interact and develop a strong affiliation towards inter-house competitions.

Objectives

To enable the students to develop

Language and literature :

- Poem Recitation and reading skills and vocabulary

Awareness creation:

- News reading, Speeches, Quizzes

Presentation skills:

- Stage exposure, talks, Power Point Presentation

Organisational skills:

- Putting the items together, a Thought for the day, biography of famous personalities

Planning done

When expectations are spelt out clearly the planning is done. In the absence of planning and preparation, the assembly will not be crisp and punctual. Assembly begins with report on parade status by school Captain, School song, Prayer in English, Assembly proceedings and ends with National Anthem. 30 min assembly programme includes 3 min cushion time and 5 min for Principal's address. Items of Assembly proceedings are tabulated here:

| | | |
|-----------------|---|--|
| CAM 6 and CAM 7 | Humans and Humanity | Jig-saw reading |
| CAM 8 and CAM 9 | Change your words, change your actions, change the world. | Locating key words, make prediction, visualize and draw pictures, summarizing, infer the meaning, evaluating meaning and understanding, designing graphic organizer, use context clues |

| S.No | Class, Time and Item | Specifications |
|------|---|---|
| 1 | Class 8 : 2 minute- News Reading - Enrich your Vocabulary | 2 Items each of National News, International News and Sports News. 5 new words are introduced by the speaker |
| 2 | Class 6: 1 minute - Poem Recitation - A Thought for the day | Memorise a short poem Narrate a thought and explain its meaning |
| 3 | Class 7 : 1 minute - Paragraph Reading | Any worthy topic of interest or the editorial of news paper is readout |
| 4 | Class 9 : 2 minute -Biography of a famous personality | Organise stages of development and infer the lessons learnt |
| 5 | Class 10 : 4 minute - Quiz | 2 questions each for a class and unanswered questions are thrown open to the house. |

Table 1(5)d Table of expectations in digital assembly and morning assembly

Success Criteria and possible alternatives decided

| | | |
|---|---|---|
| 6 | Class 11: 2 minute + 2 minute- Short talk 2 students | Prepared talk: current affairs |
| 7 | Class 12 : 2 minute + 2 minute - Extempore [2 students] | Extempore speech on current affairs topics thrown open just 3 minutes before. |

Table 1(5) e Success Criteria and tools to assess them

The reward to participant is intangible in terms of ‘a word of appreciation’ by the principal. An instant written feedback is also provided to Housemaster and the participant on each item in the assembly register photographic evidence of assembly register attached. Occasionally, the Principal gives a token of appreciation for an exceptional performance or a demonstrated improvement of a student over his previous performance.

Alternatively, for inter-house assessment on a 5- point scale for each item, can be adopted for providing the feedback by a panel of teachers. This may be used to decide House positions.

IMPLEMENTATION

Implementation is spearheaded by House spirit. On ground implementation in our school is a two-pronged: digital assembly and normal assembly. On every Tuesday, in a digital assembly, the same items are put in slides and presented.

For four Houses there are 2 rosters, one for digital assembly and another for normal assembly. This roster and Assembly Feedback Register are maintained by the vice-principal. The House master

maintains class wise roster of the students of his house and ensures equal participation by all students in assembly program. Each student knows, well in advance the day he has to speak.

The House as a team, pick up their poems, thought, personalities, quiz questions and rehearse before class/seniors/House. The team ensures that the poem is memorised for recitation and write-ups are ready. English teachers, during their class 6 and class 7, teaching slot, listen to the upcoming performances and check pronunciations and modulation. Tutors come a little early to give a practice to news readers and biography readers. They also have a check on quiz questions for suitability. Class 11 and 12 are on their own and topics are provided by the vice-principal. Finally the participants are seated serially for entry and exit.

Challenges faced in implementation

If the items are not timed to 20 minutes, there is a possibility of overshooting the assembly time slot. We cut on “clapping time”, to deal with time factor. Ban on clapping keeps the assembly more formal.

When a student is indisposed, roster adjustments are to be done.

School’s public address system and display equipment are inspected

Electricity/UPS, connectivity and printing facilities are provided.

Student access to morning newspaper in the school is a must.

House masters need to share the roster with House team and make their participants feel special for their role on stage.

The House team ensures that there are no surprises in the show. Under supervision the team guides students on ‘dos and don’ts’ on the stage and briefs speakers on salutation and conclusion too.

Resources involved (both human and material)

EVIDENCES OF SUCCESS

- Improved skills in general awareness and communication skills
- Confidence in facing the audience and public speaking skills

- Enhanced purposeful use of 'News paper in education' and library books
- Leadership qualities in seniors
- Self initiatives in participants
- Student - student bond, student - teacher bond and house spirit
- Inputs to stakeholders in providing feedback: principal-student, parent-teacher etc.
- Hidden potential of students come to forefront. Star performers come to the limelight.
- Attention is drawn towards problems such as stammering, stage-fright, faulty body language for remedial measures.

Photographic evidence or audio/video evidence

- Soft version of a digital assembly-a PPT file
- Images from visitors book on digital assembly
- Images from assembly register

BENEFICIARY SATISFACTION

Students expect their turn eagerly and feel pride in playing their role. Students record their feel-good stories in their diary entry and share it with parents over phone.

It is necessary for me to throw some light on other kind of assembly gatherings in our school such as Current Affairs Presentation, Prathahsman, Class Assembly and House Assembly.

CONCLUDING REMARKS

A scheduled assembly program is a tool to showcase the school. During formal visits of our esteemed guests we present 'A Special Digital Assembly', with participants drawn from school as a whole. Interested friendly schools attend our digital assembly and customise it to their requirements. There exists a tremendous scope for value addition by an individual as well as a team.

Innovative inclusions as the seasonal celebration, UN day and World Environmental day etc. will happen in the same format. We

use the digital assembly format for our celebrations of Hindi Day, Children's Day [focus on fun and frolic by teachers] and Teacher's Day [focus on education and learning] as well. To replace or delete an item to include "Book Review" are innovative and adoptable practices. This is a proven practice in creating a positive teaching-learning environment in our case.

“Sweet Tweets” and “Reflections”

VISHAL JADHAV, GOMATHI KAUSHIK & VAISHALI GORE

INTRODUCTION

Students are being involved in a class activity which is fostering feelings of mutual appreciation and understanding among the students. Self-appraisal and student -proposed correction measures have been helping them improve their own morals. With the intention of inculcating moral values among the students, the concept of SWEET TWEET was introduced and implemented across all the grades.

CASE PRESENTATION

Identification of the Problem/Challenging Situation/Issue to be Resolved

Moral values are on a downward spiral. Students display little or poor regard for fellow human beings and nature. They are becoming increasingly self-centered and as future citizens, they must move with moral values intact.

A small box the “SWEET TWEETS” will be placed in every class. Students drop chits of appreciation for any good work done by another child/teacher/support staff. Every Saturday the class teacher sits with her students, opens the box and they read out the “SWEET TWEETS”. Chits are handed over to the concerned child/staff. In the case of a child, the “SWEET TWEETS” is stapled to the school diary for the parents to acknowledge the goodness of their child.

Analysis of the Problem

Moral values among students are on a decline. Digitalization and lack of bondage are creating human cubicles instead of a mutually helpful and cohesive, effective student community.

Objectives

Students will be involved in a class activity which will foster feelings of mutual appreciation and understanding among the students. Self-appraisal and student-proposed correction measures will help them improve their own morals

Planning Done

A small box the “SWEET TWEETS” was placed in every class. Students drop chits of appreciation for a good work done by another child/Teacher/Support staff. Every Saturday the class teacher sits with her class children, opens the box and they read out the “SWEET TWEETS”. Chits are handed over to the concerned child/staff. In the case of a child, the “SWEET TWEETS” is stapled to the school diary for the parents to acknowledge the goodness of their child.

The class teacher and her students will also analyze the class performance on a set of parameters and will chart out ‘What Went Well’ and ‘Need Improvement’ on their ‘REFLECTIONS’ chart which will be displayed on their soft boards. The students will themselves suggest measures for improvement. This ritual will be carried out every Saturday.

Success Criteria And Possible Alternatives Decided

Positive vibrant class atmosphere and improved moral values among children were also seen. The students overcame their personal differences and learnt to respect and trust each other.

Challenges Faced in Implementation

The students especially in the primary classes, especially grades 1 and 2, could not express their thoughts coherently in the form of sentences. In this case, the teachers were asked to help the children frame smaller sentences and to help them read it out. This also led to improved language skills and boost in self-confidence of the students.

Resources Involved

Minimal resources are required. Empty carton boxes were wrapped decoratively and placed as SWEET TWEET boxes in the classes. Due to the positive feel and vibes generated by the idea, there is appreciable voluntary participation from the staff and students.

BENEFICIARY SATISFACTION

There was a very positive response from the students and all the staff. The appreciation generated helped in bonding and mutual respect among the students and staff. The parent community also expressed their approval and happiness at this attempt to improve the positivity and values among their wards.

CONCLUDING REMARKS

Any attempt to improve the moral and human values among the student community is the need of the hour. It is vital for us as nurturers of the future generation to guide, instil and continuously foster the values among our students. SWEET TWEETS and REFLECTIONS is an infant step towards achieving this mighty goal.

GLOSSARY

| S. No | Criteria | Tool to assess the criterion |
|-------|--|--|
| 1 | No child left behind | Participation roster is maintained by house-master, with class wise names of the cadets from the house with the date of assembly participation |
| 2. | Proper body language and presentation skills | Oral feedback on observations by principal and house team. |
| 3. | Pronunciation | Observation remedial measures by English teacher and elders. |
| 4. | Content, efforts and preparation | Observational feedback in Assembly register |

School Community Partnerships

“What matters in this life more than winning
for ourselves is helping others win.”

—A.P.J. Abdul Kalam

A Community Project

REENA BABBAR & AARTI CHAWLA

INTRODUCTION

The vision of the community service department of New Era Public School is 'ANTODYA', rise of the last one. Our aim is to reach out to the most marginalized sections of society. In keeping with our vision, we have been associated with DSLP (Delhi School's Literacy Project) right from its inception in 1988 soon after the launch of the National Literacy Mission by the Ministry of HRD. We have focused on self-sufficiency and sustainability. We run two vocational training centres, one in collaboration with J.S.S (Jan Shikshan Sansthan, Prayas) in PrayogVihar, Hari Nagar, New Delhi and the other in collaboration with Sewa Bharti in Prayog Vihar as well as Keshav Vihar, Mayapuri Industrial area (near Rewari line).

The learners from these two bastis are enrolled in various vocational courses like stitching, tailoring, beauty culture and basic computer literacy course. They are being encouraged by our faculty to pursue their education simultaneously. Under our Program Saksham, they are being given assistance so that they can enroll themselves in higher secondary classes of NIOS. Thus at every step, the school authorities, under the guidance of our founder Principal and Director, Mrs. Usha Chopra, is making efforts to channelize and nurture their brimming potential towards self-reliance.

Each- One- Teach- One

Students from class VI-X are involved in the Each-one-teach-one program. Students get literacy primers which are provided to us by the State resource centre (SRC) Jamia Milia Islamia. The student volunteers find their own learners. The learner could be a maid or servant or somebody from nearby slum or construction site. The aim

is to make the learner literate. The three primers (MERI KITAB- 1, 2, 3) are used by student to impart basic literacy to the learner. On completion of the program, both the student as well as learner is awarded a certified by the state resource centre.

Saksham

In 2013, under the guidance of the Principal, Project Saksham was started by NEPS, Mayapuri. Under this project, children and adults from neighboring slums, Prayog Vihar and Keshav Vihar are counseled and motivated to study. For this, the school counselors visit the slum every week and talk to young people who are school dropouts, to continue their education through NIOS. To register online in NIOS, computer literacy is required, so these learners are unable to do it on their own. Thus they are provided complete assistance by our student volunteers.

Vocational Training

We run following vocational courses in the communities:

Beauty Culture

Stitching and Tailoring

Basic Computer Literacy

Learners participation in competitions and events

Every year during the Literacy Mela, the slum dwelling residents of Payog Vihar and Keshav Vihar take part in the following inter-school activities:-

- Rangoli competition
- Hair Styling competition and quiz
- Mehndi competition
- Song competition
- Dance competition

CASE PRESENTATION

Identification of the Problem

At Community Level

Many migrant and underprivileged families live in two areas namely Prayog Vihar and Keshav Vihar which lie in the vicinity of New Era Public School, Mayapuri (NEPS). Most of the people living in these areas were struggling with poverty because they were illiterate and/or unskilled.

ANALYSIS OF THE PROBLEM

At School Level

It is imperative for students who come from privileged homes, to learn life skills and basic values like empathy and sensitivity towards diverse socio cultural and economic groups. Such education can be imparted only when children become equal partners and contribute in society.

Objectives

Ensuring access to quality education, information and knowledge base for children and adults from all walks of life, economically weaker sections and persons with disabilities.

Rendering counseling/ consulting services to underprivileged sections of the society in order to develop awareness towards various issues related to society, health, finance, law etc.

Distribution of resource material to improve the quality of educational services in the field of non-formal education.

To provide infrastructural support in the form of computers, furniture, white boards, books, notebooks, stationary etc.

Planning

Apart from each-one-teach-one and vocational courses which go on throughout the year in the communities, many other activities like awareness building programmes, educational excursions and field trips are organized from time to time. During the literacy week, the school teachers of NEPS, Mayapuri train the learners to participate in various competitions held in various schools.

Success Criteria

Every year there are about 100 beneficiaries in the three vocational courses, namely stitching, beauty culture and basic computer skills that are being run in the Prayog Vihar and Keshav Vihar bastis.

Women and children come in large numbers for the field trips and educational excursions.

Every year the beneficiaries of the programmes get scholarships by the DSLP.

Many women beneficiaries are assisted by their teachers to get jobs in the nearby beauty parlors and boutiques.

Implementation

Participation in the Each-one-Teach-one program undertaken by the DSLP (Delhi Schools Literacy Project).

Adoption of a slum community near the school campus and rendering educational and other services for the betterment of living conditions of the community dwellers.

Provision of counseling for children in the slums.

Registration of students (slum dwellers who have dropped out of school without completing class XII) in class X and XII of NIOS (National institute of open schooling), in an effort to facilitate them to continue with their education. Academic assistance is provided to these students enrolled in X & XII (NIOS).

Three vocational courses are being run in the nearby community for the benefit of the women. The three courses (i) Stitching (ii) Beauty culture (iii) Basic computer literacy each have about 100 beneficiaries every year.

NEPS believes in promoting learning outcomes that go farther than books and curricula. Excursions are planned for the beneficiaries. In past five years women and children in large numbers, have visited the Railway Museum, Bal Bhawan and Akshardham Temple, National Museum, Agresen ki Baoli, Delhi Haat and Crafts Museum.

Mobile literacy van is being sent to the community from November 2012 onwards. The purpose of provisioning the mobile literacy van is

to ensure the availability of reading material for the deprived adolescent and young learners of Prayog Vihar.

Challenges Faced in Implementation

In the Each-One-Teach-One program, our student volunteers faced many challenges. Migration of the slum dwellers poses a big hindrance to the completion of the basic literacy course.

It is also a challenge to sustain the interests of our volunteer and to facilitate them to find learners.

Gender biased attitude of the people in the community is an impediment to the education of the girl child especially for the courses like computer education or for higher education.

- Our student volunteers present street plays on the theme literacy and other social issues. These presentations are instrumental in spreading awareness and sensitizing people towards some important issues like women empowerment, importance of education, hygiene, gender equality etc.
- Women and children are provided with education and awareness regarding various government provisions and schemes especially for people with disabilities (PWDs) in the community.
- Legal awareness camps and health and hygiene workshops are held in the Community from time to time.
- Every year the DSLP organizes the Literacy week in August-Sept and students of all the member schools take part in competitions and ceremonies.

The work of the students is displayed and much appreciated.

NEPS, Mayapuri, also hosts one of the above mentioned events, which is attended by other member schools, dignitaries in the field of Literacy and Social work and esteemed guests.

- 8th September is observed as the International Literacy Day. Many a times, our students have got the opportunity to attend the International Literacy Day function held at Vigyan Bhawan.
- In the past five years, about 2000 learners have been made literate by student of New Era Public School.

- Every year, almost 100 women get vocational training which helps them become independent.
- NEPS constantly looks for opportunities for young learners from the communities to generate income. During the annual NEPS fete, a stall is provided to our learners from the community.
- Every year, our learners actively participate in the Literacy Mela organized by Dev Samaj Modern School, Nehru Nagar.

CONCLUDING REMARKS

Our partnership with community has shown very encouraging results for our learners. Due to the far reaching impact of vocational and skill training, many of our women learners have started generating income thereby feeling empowered. Getting basic literacy of the three R's (Reading, Writing & Arithmetic), has enabled them to gain confidence.

Our student volunteers have acknowledged that their visits to the community have been one of the most satisfying and rewarding experience. They have become more empathetic, more sensitive and more patient towards society at large.

Designing a Sustainable Village

MATHEW K J & SHANTHALA M RAO

INTRODUCTION

The study of a village offers an opportunity to learn about the realities - that need to be addressed in order to build a sustainable future for our villages. In this project, we have taken Koorgalli village as our study area. We will be focusing on how to make this village self-sufficient and sustainable.

Some of the concept that we dealt in this project is as follows:

Topography

1. Topography
2. Water management
3. Governance
4. Village economy
5. Health and sanitation

This project provided us an opportunity to conduct a survey of the village and determine whether the practices followed sustainable. The challenges given to us was to survey atleast hundred households and determine whether the village is economically, socially and environmentally sustainable. We then had to suggest changes and build a model of a village that had the above components. For this project we chose Koorgalli village which is adjacent to our school.

After conducting the survey we identified the following problems:

- a. poor drainage
- b. Scarcity of drinking water
- c. No hospitals and health centers
- d. Poor garbage disposal
- e. No banks

- f. Poor literacy
- g. poor Roads
- h. Street lights
- i Unemployment
- j. Poor landuse
- k. Cleaning of the lake
- l. Poor nutrition status
- m. Poor participation in village governance

Field Survey

A research method for collecting information from a selected group of people using standardized questionnaires or interviews is called survey. Surveys are useful in gathering information regarding beliefs, preferences, thoughts and opinions and to describe the characteristics of a large population. In this project, we conducted survey to gather information regarding the problems that Koorgalli village is facing (listed under subheading 2). The final result of the survey for 120 houses surveyed is as given below:

Survey Data

How many are:

| Word | Meaning |
|-------------|--|
| Sweet-Tweet | A note of appreciation from one stakeholder to another |
| Stakeholder | Principal, teachers, students, support staff and parents |

What is the source of income in your family?

| | | No. | PG | UG | PUC | SSLC | Below | Adult Education |
|-------|--------|-----|----|----|-----|------|-------|-----------------|
| Adult | Male | 192 | 10 | 11 | 30 | 45 | 64 | 1 |
| | Female | 190 | 10 | 16 | 18 | 33 | 75 | 2 |
| Child | Boy | 77 | 0 | 0 | 14 | 5 | 39 | 0 |
| | Girl | 60 | 0 | 0 | 15 | 5 | 30 | 0 |

How much is the monthly income of your family?

| Source of Income | Type | Male | Female | Children |
|---|------|------|--------|----------|
| Agriculture | 7 | 21 | 2 | 0 |
| Cottage industry | 1 | 1 | 1 | 0 |
| Factory | 10 | 41 | 7 | 0 |
| Shops | 3 | 8 | 2 | 0 |
| Government employee (Salaried) | 2 | 2 | 2 | 0 |
| Labor | 14 | 47 | 11 | 1 |
| Any other (please mention the occupation) | 1 | 22 | 1 | 1 |

Where do you save the money?

| Up to 5000 | 5000 – 10000 | 10000 – 20000 | 20000 – 30000 | Above 30000 |
|------------|--------------|---------------|---------------|-------------|
| 20 | 58 | 32 | 7 | 3 |

Do you have:

| Bank | Chit | Lend for interest | Any other source |
|------|------|-------------------|------------------|
| 53 | 20 | 3 | 3 |

What is the source of water for household purpose?

| | No | Yes | Number |
|-----------------|-----|-----|--------|
| TV | 8 | 112 | 92 |
| Washing machine | 102 | 18 | 11 |
| Car | 94 | 26 | 11 |
| Two wheeler | 19 | 101 | 109 |
| Fridge | 68 | 52 | 41 |
| Sewing machine | 82 | 28 | 19 |
| Fan | 22 | 98 | 157 |
| Computer | 92 | 28 | 9 |
| Mixer | 12 | 108 | 91 |
| Mobile phone | 2 | 118 | 203 |

What is the source of drinking water?

| GP supply | Nearby water bodies | Groundwater (bore well) | Open well | others |
|-----------|---------------------|-------------------------|-----------|--------|
| 74 | 2 | 37 | 3 | |

Do you have a toilet in your house?

| GP supply | Nearby water bodies | Groundwater (bore well) | Open well | others |
|-----------|---------------------|-------------------------|-----------|--------|
| 80 | 3 | 17 | 1 | |

Do you have a separate supply of water for your toilet?

| | |
|-----|-----|
| Yes | 109 |
| No | 11 |

How is toilet waste disposed?

| | |
|-----|----|
| Yes | 80 |
| No | 40 |

Where does the water from kitchen and bathrooms, washing clothes, etc. (Grey Water) go?

| | |
|------------------------|----|
| Public drainage system | 25 |
| Individual pit | 95 |

How often is garbage collected from your house?

| | |
|------------------------|----|
| Open drainage system | 97 |
| Closed drainage system | 2 |
| Individual pit | 11 |
| Garden | 6 |

Do you segregate your garbage?

| Everyday | Alternative day | Weekly once | Weekly twice |
|----------|-----------------|-------------|--------------|
| 2 | 2 | 67 | 25 |

Amenities

| | |
|-----|----|
| Yes | 35 |
| No | 85 |

Do you have any small scale industry in your village?

| Amenities | Yes | No |
|---|-----|-----|
| Drinking water | 118 | 2 |
| Street lighting | 110 | 10 |
| Sports facilities especially play grounds | 120 | 0 |
| Community halls | 5 | 20 |
| Libraries | 25 | 4 |
| Burning Ghats/burial grounds | 120 | 0 |
| Ration shop | 30 | 0 |
| Post offices | 120 | 0 |
| Banks | 0 | 120 |
| PHC | 120 | 0 |
| Internet | 29 | 91 |
| Public Transport | 30 | 90 |

Livestock status

| | |
|-----|----|
| Yes | 26 |
| No | 71 |

Types of vegetation around your house

| Livestock | Numbers of Livestock |
|-----------|----------------------|
| Cows | 46 |
| Buffalo | 14 |
| Sheep | 19 |
| Goat | 4 |
| Poultry | 93 |
| Others | 25 |

Based on this data we could identify some of the problems faced by the residents of the village. To identify solutions to the problems observed we conducted an in-depth research and then zeroed in on the solutions.

PROBLEMS AND SOLUTIONS

Scarcity of drinking water and Poor Drainage

Rainwater Harvesting

RWH is a technique of collection and storage of rainwater into natural reservoirs or tanks, or the infiltration of surface water into subsurface aquifers (before it is lost as surface runoff). In our model, we used rainwater harvesting to recharge the groundwater. The open drains were converted to the channels that transport the storm (rain) water into the lake. As the open drains structures already exist the same can be converted into storm water recharge. The network of drains leads to the lake as the topography suggests that the lake is at a lower level compared to the residences and a set of few borewells already exist in that region. The rainwater can be used to recharge the existing bore wells around the lake. This might help to mitigate the scarcity of drinking water that exists in the village.

Reverse Osmosis Plant

Osmosis is a naturally occurring phenomenon and one of the most important processes in nature. It is a process where less concentrated saline solution will tend to migrate to the saline solution whose concentration is more.

A reverse osmosis membrane is a semi-permeable membrane that allows the passage of water molecules but not the majority of dissolved salts, organics, bacteria and pyrogens. However, we need to 'push' the water through the reverse osmosis membrane by applying pressure that is greater than the naturally occurring osmotic pressure in order to desalinate (demineralize or deionize) water in the process, allowing pure water through while holding back a majority of contaminants. In our model, we are setting up Reverse Osmosis (RO unit) unit in the village under National Rural Drinking Water Program (NRDWP), a scheme of Government of India wherein the residents get purified drinking water at a nominal cost.

DEWATS-Decentralised Wastewater Treatment System

DEWATS applications are based on the principle of low-maintenance since most important parts of the system work without technical energy inputs and cannot be switched off intentionally. Wetland plants are used to clean the grey water. In this model village we have used DEWATS technology to recycle grey water. Even though this recycled water cannot be used for drinking, it can be used for plants along the roads and parks.

| Vegetation | Numbers |
|--|---------|
| Fruit bearing trees like mango, papaya, guava etc. | 65 |
| Coconut tree | 124 |
| Shade giving trees like neem, pongamia | 37 |
| Flowering plants like hibiscus | 85 |
| Medicinal plants like tulsi | 52 |
| Fencing Plants | 15 |
| Decoration plants like orchids, cactus | 9 |
| Any other | 4 |

Fig.1. DEWATS setup

The grey water from kitchen and washing is diverted to the DEWATS so that a particular level of treatment can be done and the recycled water can be used for gardening.

Poor garbage disposal

During the field trip to the village, we observed garbage as a major problem. Garbage was not segregated and was thrown all along the roads and in the vacant land. Garbage is a major menace as the whole village has become a breeding ground for the mosquitoes, flies and other pathogens. The remedy of to this problem is the segregation of waste into 3 different colour dustbins (organic waste, recycle waste and sanitary waste).

Apart from segregation of garbage, it is the responsibility of the village to take care of the village cleanliness hence once in a month the village community can participate in the cleaning of the village.

Poor Roads

When we visited Koorgalli village we observed that many habitations were not connected properly with tarred roads. Keeping this problem in mind we have suggested that the people should closely work with the gram panchayat and plan for laying the roads in phases. Since the maintenance of the village roads are entrusted to the panchayat by the government, funds are allocated for this purpose. Panchayat can look into the appropriate funds for construction of roads in phases covering the entire village.

Street lights

All the major roads and few interior roads have lamp posts, The source of electricity to glow the street lights in the present village is the electricity from Chamundeshwari Electricity Board, Mysore. We suggest solar panels to be fixed on the lamp post so that electricity generated from the sun (solar power) can be used to power streetlights. To make the efficient use of the light, we also suggest using the lamp shades, so that the light pollution is reduced. Also, it has been suggested to place the lamp post in such places along the roads where the tree branches don't interfere with the light.

No hospitals and health centres

Koorgalli village does not have a primary health centre. To address this problem we suggest that the villagers through their Panchayat can request the neighboring hospitals to organise frequent medical checkup camps for different age groups at a nominal cost. Another suggestion is: a specialist doctor can visit the village health center once a week and give treatment to the needy public.

POOR NUTRITION STATUS

Rooftop Gardens

The practice of cultivating food on the rooftop of buildings is sometimes referred to as rooftop farming. Rooftop farming is usually done using green roof, hydroponics, aeroponics or air-dynaponics

systems or container gardens. These gardens are useful for growing vegetables that can be used locally.

AQUACULTURE

FAO defines aquaculture for statistical purposes as the “farming of aquatic organisms, including fish, molluscs, crustaceans and aquatic plants. Farming implies some form of intervention in the rearing process to enhance production, such as regular stocking, feeding, protection from predators, etc. Aquaculture is being proposed in the lake and the fish that are cultured there can cater the village as a source of nutrition. The fish that are in excess after catering the village can be sold out in the market and thus aquaculture products can become a source of good revenue.

Cleaning of the lake

When we visited Koorgalli village we observed that all the wastewater flows into the lake and pollutes the water in the lake. In the model village, we wish to first clean the lake by blocking the entry of greywater. Then we wish to dredge the lake and desilt it after which we will ensure that only rainwater enters into it. In this we wish to promote aquaculture as it can generate revenue and also boost up the nutrition of the village people.

POOR LAND USE

Agroforestry

Agroforestry or agro-sylviculture is a land use management system in which trees or shrubs are grown around or among crops or pastureland. It combines shrubs and trees in agricultural and forestry technologies to create more diverse, productive, profitable, healthy, ecologically sound, and sustainable land-use systems. In this model village, we have adopted high density planting of Malabar Neem (*Melia Dubia*). This tree grows very fast and reaches a height of 40 ft in two years. Since this wood has an anti-termite property it is in high demand in the plywood and paper industry. We have also suggested planting castor plants under the high-tension power lines so that the

castor seeds can be sold as a raw material for the castor oil manufacturing industry. Another variety of vegetation that is being suggested is the Gliricidia. These plants are a good source of green manure and can serve as a substitute to artificial fertilizers.

Compost

Compost is organic matter that has been decomposed and recycled as a fertilizer and soil amendment. The green waste that is being segregated in each household can be collected and sent to the compost land where the wastes are converted to compost.

Horticulture

Horticulture is the science and art of growing plants (fruits, vegetables, flowers, and any other cultivar). In contrast to agriculture, horticulture does not include large-scale crop production or animal husbandry. Each household in our model village will be encouraged to grow at least one fruit tree. This will help improve the nutritional status of the family and also generate revenue by selling fruits in the local village market.

Poor literacy rate

Our survey shows that the literacy rate in the village is very low. This is one of the root causes of many problems. We have found a few remedial measures to sort out this problem of poor literacy rate.

- The present school buildings within the village can be used as an adult education centre in the evening after the regular students leave.
- Employ teachers on a regular basis and they should be able to teach in an application-oriented manner. They should have updated knowledge.
- Create awareness amongst the parents to send their children to school and not to work (no child labour).
- Encourage the children especially girls to attend the school.

UNEMPLOYMENT

Skill Development Center

Skill development centre addresses the issue of lack of trained labour for the neighbouring industries in Koorgalli. We propose that a skill development centre that can cater to the requirements of Koorgalli industrial area be setup in our model village.

Self Help Group

Self-Help Group (SHG) is a small voluntary association of poor people, preferably from the same socio-economic background. They come together for the purpose of solving their common problems through self-help and mutual help. The SHG promotes small savings among its members.

Banks

Microfinance institutions mainly target poor households in rural areas to access financial services such as very small loans (microcredit) to help them to invest in or scale up their small businesses (microenterprises). In our survey, we came to know that many residents had an account in bank but there is no bank or ATM within the village. We suggest that the panchayat holds talks with small banks to setup a branch in the model village for the benefit of the residents.

Poor participation in village governance

In order to overcome this problem of poor participation of the residents in village governance, we suggest the following:

- Functioning of the Gram Sabha should be explained in detail to the village residents. They should be made aware of their role in the village and given equal rights to put forward their views.
- Gram Sabha should meet the village residents once a month to understand their grievances.
- Residents concern should be taken by the Gram Sabha while taking important decisions

Educate the public

Apart from all the above solutions one of the most important solutions to all the problems is educating the residents through

announcements and campaigns. Community radio to communicate government schemes, public awareness, health and hygiene practices can be an alternate for educating the public.

CHALLENGES

- Time constraints to conduct survey
- Survey data collection - certain information was not given by the residents
- Village map - we could not get the proper map because of which we had to change the scale of the house and tree models.
- Information from Gram Panchayat- it was very difficult to get the information from the Gram Panchayat
- Scaling the models

A School with A Heart

Aditi Misra

INTRODUCTION

Committed to the cause of bringing about a change in the lives of less privileged children of our society the school was opened to the children of the neighbouring villages on 6th May 2003. This was Shiksha Kendra, built on the model of the Anubhav Shiksha Kendra of DPS RK Puram.

The school started with 50 students, 2 teachers and 1 helper for classes Prep & class 1. Today the school imparts education and impacts approximately 1500 first generation learners and their families. The school has a team of 50 strong and dedicated teachers and support staff with a Coordinator who works with the Principal.

Everyday, students of senior classes of the morning school stay back and teach students of the Shiksha Kendra. They take classes on English Conversation, Maths, Music, Dance, Art, Recitation and Sports. Teachers from the morning school stay back to take classes too.

This sustainable model of Shiksha Kendra is supported by DPS Gurgaon on many fronts. The parents of DPS Gurgaon contribute, reading material, toys, stationery, uniforms, books and woollens from time to time. Various corporates have come forward to support this venture.

THE SCHOLASTIC PROGRAMME

The comprehensive and interactive curriculum empowers the students with life skills and also teaches skill sets to students for the National Institute of Open Schooling (NIOS) Examination. Shiksha Kendra is an accredited study center for NIOS. Elementary level courses are conducted at three levels through Open Basic Education (OBE). Level A (class III) Level B (class V) and Level C (class VIII) wherein the students are awarded passing certificates after successfully completing the course. Class X (Secondary) and Class XII(Senior Secondary) students appear for their board exams conducted by NIOS. The school has had 100% results in the past many years!

The NIOS instills confidence in the students which is a prerequisite skill when they are applying for vocational courses and job. Ciena Telecom, USA

as a part of their Corporate Social Responsibility, partners with DPS in imparting education to the students of X and XII of Shiksha Kendra. Thrice a week these children are coached in Physics, Chemistry and Mathematics at the Ciena office. This interaction with Ciena not only provides the students with an opportunity to learn from the best professionals but also gives them an insight into the latest software.

Team Shiksha Kendra- Sharing of human resources: Involvement of senior school students of DPS Gurgaon

The twinning of Team Shiksha Kendra (TSK) comprising of students of classes IX, X & XI with the Shikha Kendra school is a beneficial arrangement. TSK stays back thrice a week for academic help and support. 'JAZBA', a dedicated group of Class XI students mentor children on Public speaking, Dramatics, Dance, Music and Arts.

The teachers of DPS Gurgaon contribute by teaching at Shiksha Kendra, conducting workshops and also mentor the teachers of Shiksha Kendra.

EXPLORING POTENTIALS

21st century education has undergone a paradigm shift wherein emphasis is given to reasoning, psychomotor and emotional learning.

Constructive programmes are also added to the curriculum which help the students understand their potentials. One such project was 'The Voice Project -Slam out Loud' which enabled the students to discover their own voices and potential through theatre and poetry. The programme was sponsored by a parent for the academic session 2017-18. Under the direction of three eminent artists from the world of theatre, the participants showcased their talent in form of a stage show after the culmination of one year long programme. This sharing is tangibly beneficial for Shikha Kendra students. The students and teachers of DPS Gurgaon learn to share resource and are given the opportunity to give back to society and become the agents of change.

The students of Shiksha Kendra take part in a number of functions and activities throughout the year. These are opportunities to enhance their overall personality and harness talent!

The school carnival is another such function which is a much awaited annual event for both the schools. The proceeds of the carnival go towards supporting the Shiksha Kendra. The students of Shiksha Kendra put up a cultural show before an august gathering comprising of members of the Managing Committee of the school along with the parent fraternity.

The students also participate in various competitions like MUN'S and partake in activities for the International Exchanges at DPS Gurgaon. The house activities and assemblies provide impetus for holistic growth. Students take part in regular activities and competitions which enhance their learning and imbibe creativity. To cite a few- collage and poster making, card making, research work, declamation, nature-walk, story- telling, debate, recitation, street play etc. The students enthusiastically take part in the Annual Sports Day celebrations every year. Assemblies held to mark special occasions are a part of the major events of the school.

The Investiture Ceremony is a special day for Shiksha Kendra, where the Student Council are selected after an interview with the Director Principal. This gives the students a sense of pride, responsibility and involvement in the working of the school.

Support from Alumni and Parents- Education beyond school

With the mission of 'service before self' it becomes imperative that we fulfil the dream of students seeking higher education after they pass out from Shiksha Kendra. A dedicated corpus contributed by the passing out batches of class XII and donations by parents goes a long way in turning dreams into reality.

It is heartening to know that the quest for knowledge which Shiksha Kendra has awakened in the students is taking them to college to pursue higher education. To ensure that lack of funds does not cripple their dreams, DPS is financing their college studies too!

THE WAY FORWARD

It is encouraging to note that most of the students are absorbed in jobs that will raise the standard of living of their families and will give them wings to fly and reach for the stars.

The quote, 'It is in giving that we receive' is justifiable as the community partnership between the two schools benefits both tangibly and intangibly.

Shiksha Kendra Movie

<https://drive.google.com/file/d/1Td6cBSuKfcAwn30eNrXOcEK6IFSs4Gtw/view>

Curriculum Planning

“The highest education is that which does not merely give us information by makes our life live in harmony with all existence.”

—Rabindranath Tagore.

Computational Thinking

MANJU BALASUBRAMANYAM & SWANA RAWAT

INTRODUCTION

A good curriculum is one that enables experiential learning, tinkering and use of different pedagogical approaches where students learn by participating and are empathetic towards real life issues and turn into problem solvers. It emphasizes the importance of technology to provide multi-sensory approach to learning to foster innovation, communication and collaboration skills. There is a constant shift towards building an ecosystem of motivated self-learners, innovators and life-long learners. The need of the hour is not just to teach tech tools to the students but also to empower them.

As a school we have taken a positive step in that direction and taken the initiative to integrate computational thinking into our computer science curriculum and hope to incorporate it in other subjects as well in the coming days.

CASE PRESENTATION

As the departmental head I was always going through available textbooks to find a curriculum that would best suit my students. For grades 1-3, most of the textbooks concentrated on similar content, teaching the students how to hold the mouse or parts of the mouse and keyboard, etc. The issue here was whether the students needed to be taught these when they were fiddling with tablets and mobile phones at an age as early as 2 years.

Analysis of the problem

Most of the students from our school have mobile phones, tablets and laptops at home. Children start playing with these gadgets from a very young age. They use apps to paint, play games or listen to nursery games. By the time they come to class 1 their level of

comfort with gadgets is very high. The problem here was whether we should be teaching them one more gadget (in this case personal computers) at school or could we plan a curriculum that would be different. We also know that as students come to higher classes they focus less on thinking creatively and their interests in innovation reduces. Because their focus shifts to scoring well in exams. That made me think that what if we could teach them to think differently from an early age and be innovators from the very beginning, maybe a difference could be made.

Objectives

Make an ICT curriculum that helps the students to think, innovate, be future ready and be lifelong learners. A curriculum which is forward looking and meets the needs of future learning techniques.

I decided on building a curriculum around computational thinking.

Computational Thinking is broadly defined as a set of cognitive skills and problem solving processes that include the following characteristics

- Using abstractions and pattern recognition to represent the problem in new and different ways
- Logically organizing and analyzing data
- Breaking the problem down into smaller parts
- Approaching the problem using programmatic thinking techniques such as iteration, symbolic representation, and logical operations
- Reformulating the problem into a series of ordered steps (algorithmic thinking)
- Identifying, analyzing, and implementing possible solutions with the goal of achieving the most efficient and effective combination of steps and resources
- Generalizing this problem-solving process to a wide variety of problems

Current integration computational thinking into the K-12 curriculum comes in two forms: in computer science classes directly or through

the use and measure of computational thinking techniques in other subjects.

The characteristics that define computational thinking are decomposition, pattern recognition / data representation, generalization/abstraction, and algorithms. By decomposing a problem, identifying the variables involved using data representation, and creating algorithms, a generic solution results. The generic solution is a generalization or abstraction that can be used to solve a multitude of variations of the initial problem.

Then started the process of deciding the topics to be taken up.

FOR CLASSES 1 TO 3

The following topics were decided with increasing levels of difficulty as we go up the class. Every topic resonated with the characteristics of computational thinking

- Mind Mapping: Breaking the problem down into smaller parts
- Graphing: Logically organizing and analyzing data
- Spatial Mapping & Pattern recognition: Using abstractions and pattern recognition to represent the problem in new and different ways
- Along with these the following topics are also covered in the practical classes
- Keyboarding: Typing without looking at the keys
- Operating the computer
- Parts of the computer
- Text editing
- Painting and most importantly **Cyber Safety**.

Assessment: There are no end of the term exams. Instead assessment happens after every activity to evaluate how much each child has assimilated the concept taught.

FOR CLASSES 4 AND 5 (PROJECT BASED LEARNING)

The curriculum for computational thinking was extended to learn

- **programming** : Approaching the problem using programmatic thinking techniques such as iteration, symbolic representation, and logical operations. Reformulating the problem into a series of ordered steps (algorithmic thinking)

Along with this advanced text editing (class 4) and making presentations (class 5) is also taught. **Cyber safety** is taught at every grade.

- **Assessment:** Class 4 and 5 assessment is based on project-based learning. All students have to do projects in groups and demonstrate their projects with a detailed documentation using a Text Document in class 4 and using a presentation in class 5. This way the students learn the project making cycle and the importance of documentation in a project.

FOR CLASSES 9 AND 10

Students are taught high level programming language **Python** and **Web Designing** with CSS as part of computational thinking.

Python is the most used language nowadays that every student should know. Atleast the basics. It helps them to innovate and tinker and create a lot of softwares/apps to help their innovation cycle.

Web designing helps the students during their innovation cycle as well as in their entrepreneurship startups as website designing helps in their marketing plans and outreach of their startups.

From the next academic year **Data Analytics** will be introduced in class 10 as it is a huge topic right now along with Big Data. The students will concentrate more on Data Analytics rather than the tools.

FOR CLASS 8

DPS Bangalore North has an ATL Lab which is working on tinkering and innovating. From the next academic year, we will be introducing 3D designing as part of the class 8 syllabus to help the students in their process of innovating in the ATL Lab. 3D Modelling is an important tool for innovation. Every student should be equipped with

this tool so that they can design their own prototypes and print them using 3D printers.

Success Criteria and possible alternatives decided.

If the students are able to learn the computational techniques taught in the computer science classes and use them in the way they learn, retain and apply other subjects and use them in their daily lives to be problem solvers and make a difference to the community, we can say success has been achieved.

IMPLEMENTATION

The curriculum is being taught for last two years with constant reviews and upgrades. Newer topics are being added every year in a phased manner. Teacher training has been conducted on a regular basis.

Challenges faced in implementation

In the first year the computational thinking curriculum for classes I - III was introduced simultaneously for the three classes. All three classes were beginners and the content was similar. But as class I moved to class II and then to class III, they couldn't be taught the same content again. So, every year we revise the textbooks to ensure as classes are moving up they get different worksheets with different levels of difficulty.

Two periods in a week where only one is being used to teach computational thinking is not sufficient. More periods would mean more practice and newer additional topics that could be introduced, e.g. unplugged programming for classes I and II or writing simple algorithms/flowcharts.

CONCLUDING REMARKS

Research and parental feedback have gone in favour of our new Computational Thinking curriculum. Our next endeavour will be to integrate computational thinking with other subjects like Math and

Science so that the learning in the computer science classes could be extended to other subjects and be used in real life problems.

Multidisciplinary Middle School

VANDANA SHARMA, NIDHI AGRAWAL, INDRA RAWAT & SONIA BHATIA

INTRODUCTION

How to engage Students who are in their early adolescence; students who live in a virtual world for long hours and students who live in times of changing family dynamics? In one of the Academic Meetings the agenda was the need for innovative and effective pedagogies to engage modern day learners. Teachers of middle school and Head of Departments suggested various pedagogies and Cross- Curricular approach was chosen as one of the pedagogies. So, teachers from different departments collaborated to chalk out a cross-curricular plan to make learning more meaningful and a seamless experience.

CASE PRESENTATION

As the bell rings, movement from one subject to another for some students can be as difficult as jumping from an aeroplane to a train. Longer time taken by the child to switch over to the next subject for the lack of interest makes him miss the first part and by the time he /she is ready, class has moved to the next part and little traces of interest also take a back seat. A child moving from a front seat to back seat; engaging in undesirable behaviour; not coming regularly to school etc. The use of present continuous aims to create images in the reader's mind for an easy recall on the alarming signs of loss of interest in a subject which is the biggest failure for any educator.

Different subjects come in tight compartments and sometimes it is difficult for a young learner to comprehend its relevance to the real world where one subject perspective is not enough

Analysis of the problem

We lose interest when we do not understand things or lack motivation. Children are no exception. Rush to complete syllabus, monologue by the teacher, activities where learning outcomes are almost invisible, and several other factors makes the problem severe. Sometimes the choicest pedagogies fail for it requires the assemblage of varied resources for a class of forty odd students by - one person -the teacher. Intrinsic motivation and developing the need for learning has the potential to resolve the issue.

Cross-Curricular Pedagogy gives the young, questioning adolescents answers to why they should know a particular content and how it can be of use in the real world. Better associations also make way for better learning.

Objectives

To ensure effective achievement of learning outcomes.

Planning Done

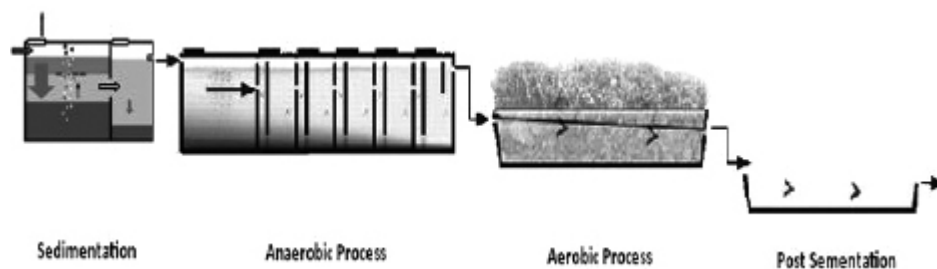
To make it more lucid for the reader, planning done by one Triad of teachers from 3 subjects is given below -

Formation of Triads

Subject teachers of class 8 had a mid- session meeting in which they made a list of topics which appeared in more than one subject It was found that topics like agriculture, soil, environment degradation and forests were found in in Science as well as Social Science. The two subjects had the potential to provide for enough vocabulary and contextual information to be used in writing skills exercises in English language. Teachers formed Triads i.e. subject teachers from 3 different subjects explored the possibilities of connecting their subjects for better learning outcomes.

Combined Lesson Planning

Title of learning Experience : ENVIRONMENT MATTERS Class 8



Learning Objectives:

| Subject | Topic | Day/Date...To... |
|---------|---|------------------|
| Science | Combustion of fuels and environment degradation | |
| Civics | Environment Laws | |
| English | Letter to the Editor -Menace of burning garbage | |

This was followed by the Individual Lesson Planning and assessment schedule

Reflection Session to study the efficacy of the Multi-disciplinary cross curricular Pedagogy

Success Criteria and Possible Alternatives decided :

Success of the pedagogy was assessed on the following parameters

Attendance in the scheduled week

Contribution made by the students in the group work

Individual performance in the weekly written test

Self—assessment

Peer—Assessment

Parent Feedback

IMPLEMENTATION

Cross-Curricular pedagogy was implemented in class 8A whereas conventional method of teaching was followed in class 8B.

- Science and Social Science topics were taught in the same week in the respective classes. This generated enough content and relevant vocabulary for English Writing Skills. Hence, Letter to the Editor on the menace of burning garbage, was taken up after the completion of the topics in Science and Social Science.
- Formative Assessment was conducted in both the sections.
- Reflection Exercise : the teachers involved compared and analysed the results in their respective subjects in both the sections of class 8.

Multidisciplinary cross-curricular learning-Lesson Planning (An Overview)

Objective: To apply cross-curricular pedagogy for better learning outcomes

What and WHY?

Purpose from a teacher's perspective

Social Science, Science, English... Are there links between these subjects? Can the common links lead to a better understanding amongst the learners? Can it reduce the burden and make the whole teaching-learning process more meaningful and foster better outcomes?

- To create a need to learn
- To develop a seamless experience for deeper learning by connecting different subjects

Purpose from the student's perspective-

- Why should I learn?
- How can this content empower me?
- Why do we study different subjects?

HOW?

Designing the lesson plan

Collaboration: Teachers of English, Social Science and Science of class 8 discussed how the 3 subjects could be associated for deeper learning. Formation of triads. e.,3 teachers of 3 different subjects

formed a group. Two such triads then brainstormed and designed the lesson plan to adopt this innovative pedagogy.

Identification of topics /concepts to be associated:

Science: Combustion of fuels and air pollution

Social Science: Laws to protect environment

English: Letter to Editor - Write a letter to the Editor of the local daily on the pollution in your city.

WHEN?

Re-scheduling the teaching time of these topics in the sample classroom

Originally, as per the syllabus planning Letter to Editor was planned in the upcoming week. Social Science topic was to be taught in the 3rd week and Science topic was to be taught in the 5th week. Hence, the time frame was spread over a period of 5 weeks.

Re-scheduling- However, in the sample classroom (VIII-A) the timing was rescheduled. Topic-Combustion of Fuels and Air Pollution was taught first in the upcoming week. After its completion in the time frame of 5 days, Laws to Protect Environment was taught in Social Science. This was followed by Letter writing exercise in the English class. Hence, time frame for covering these topics was contracted to 2 weeks.

Teaching Methodology: What was done differently in the sample class VIII-A?

Carrying Forward closure activities used for formative assessment in one subject, for introducing new topic in another subject

Science: As a part of closure activity for the purpose of formative assessment, students made mind maps in a group of 4-5 students. Class was divided into 8 groups. Mind maps were assessed by the peers on the basis of maximum coverage of content, creativity and clarity.

Social Science: All the mind maps were displayed in the class. Science Teacher had already informed the class that these mind maps would be reviewed by the Social Science Teacher. The highest

scoring mind map from the Science Class was also presented in the Social Science class. It was appreciated by the Social Science teacher and also used to introduce the new topic.

As a part of closure activity for Formative Assessment, each group prepared a chart on the- Laws to Protect Environment along with a drawing. This was again assessed by the peers on the basis of coverage of content, creativity and clarity.

English: The Charts from the Social Science class were displayed in the class. English teacher started her session by appreciating the charts and engaging students in a discussion on what they had depicted. This was followed by brief discussion on ways to resolve this environment issue She then suggested that our concerns, problems, suggestions to the concerned authorities can be communicated through - letter to the Editor. After displaying the Format of the letter she asked the students to write the letter.

ASSESSMENT

Peer Assessment of the Group work-Formative assessments as closure activities assessed by the peers on the given rubrics - coverage of content, creativity and clarity. Students were told in the very beginning that an honest and objective feedback will be rewarded with stars on the incentive chart.

Written test was given after the completion of the topics which was same for both the sample section and comparative section of class 8.

Self -Assessment chart displayed on the smart board

| Subject | Knowledge | Skills /Values | Attitude |
|----------------|---|--|--|
| Science | concept of combustion, harmful emissions and it's impact on environment | critical thinking, communication and collaboration | be aware of the aqi (air quality index)and develop scientific temperament for environment conservation |
| Social Science | environment laws | communication / citizenship/ self-awareness | be a responsible and aware citizen |
| English | format of letter | communication skills/citizenship | taking initiative ; spearheading positive changes |

Result Analysis: Result analysis of the written test and self-assessment revealed better learning outcomes *(presented in the graphs) in case of sample class VIII A in comparison to VIII-B. VIII-A fared better in higher level understanding which involved analysis and synthesis.

Reflection on the pedagogy employed: Towards the end of the module, teachers once again collaborate to reflect upon the entire exercise.

Points used for reflecting on the pedagogy employed-

- How difficult or easy it was to collaborate with the fellow teachers?
- Was there an improvement in the no. of students actively engaged in the class?
- Were there any surprise learning outcomes?
- Were the students able to make inferences or applications that were beyond what was taught in the class?
- Should it be done again?
- If we do this again, what can we do differently to improve the learning outcome?

Challenges faced in Implementation

Despite attending various capacity building programs on cross-curricular approach, teachers were little apprehensive when it came to implementation of the pedagogy. Lack of time to collaborate frequently was cited as one of the reasons. However, as soon as they formed triads, they discovered apparent links which could help them develop better learning experiences.

Another challenge for the teachers was to stay connected and alert so as to introduce the link topic just in time to allow the cross-linkages to stay meaningful.

Resources involved both Human and Materials

Lesson Plan NCERT textbook reference material Skills -teaching and collaboration Smart Board, Black Board Colours Markers

EVIDENCES OF SUCCESS

Students of class 8A scored better than those of 8B in written assessment in all the 3 subjects in the cognitive domain.

BENEFICIARY SATISFACTION

Implementation was full of surprises and one thing seamlessly lead to another. Since, students were already aware of the harmful impact of burning fuels on the environment, it was easier for them to understand the need for the environment laws. The urge to do something for the cause of environment was already present and hence the letter to Editor appeared as a necessary skill and not a forced syllabus to be learnt only for the marks in the exam Hence, it not only made it easier to introduce new concepts but also created conducive environment where students could accept learning as a natural and an existential process

It definitely requires more energy, efforts and patience to make the subject experts and master orators to listen and collaborate for a cross curricular plan. But once the ball is set rolling, there is no looking back and everything falls in place. The whole experience

created a natural demand for the content and nudged the students to develop the necessary skills.

CONCLUDING REMARKS

Separate subject curriculum should continue but these methods should be used to break the monotony. Cross-Curricular Pedagogy comes with its own limitations such as scarcity of time. However, if it is embedded at the time of curriculum planning, it should not be difficult to implement it. The most rewarding aspect of this pedagogy is that it not only brings the teachers together, it brings the learners closer to the relevance of the subjects and encourages the learner to apply it and pave the way for new knowledge and above all it create a learning continuum.

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Joyful Learning

AMITAVA GHOSH

INTRODUCTION

Based out of the capital city of Raipur in the state of Chhattisgarh, BVB Raipur was founded in 2010 in an area of the city which had limited development and a very small residential population called Baronda. From its very inception hence, the school needed to be a harbinger of learning and development in the region and Raipur as a whole.

BVB Raipur's infrastructure provides adequate learning facilities for academics, sports and co-curricular activities. It is spread out over an area of approximately 5 acres. As of 2019, the student strength is close to 2000 students divided into approximately 53 sections with about 90 teachers forming a part of the academic staff.

Over a period of 11 years, the number of students in the school have gone up by a whopping 11 times approximately. Even though the school has such large volumes, every single student is exposed to all forms of academic, co-curricular and extra-curricular learning from Grade 1 itself.

The fact that students and teachers continue to do the school, city and the nation proud at international levels in various fields including science, sports and academics is only testament to the unwavering vision and efforts of the school leadership towards making learning joyful through its Cross-functional Learning Mechanism.

| Topic | Excellent | Good | Need Help |
|--------------------------------|-----------|------|-----------|
| Pollutants | | | |
| Causes of Air Pollution | | | |
| Global Warming | | | |
| Impact on Health | | | |
| Environment Laws | | | |
| Format of letter to the Editor | | | |

| Skills and values | Yes | No | Not Sure |
|---|-----|----|----------|
| Can speak confidently on the subject of air pollution | | | |
| Clean air is our right | | | |
| Citizens can do something about it | | | |
| Editor has the authority to enforce environment laws | | | |
| Can confidently frame a letter to the editor | | | |

CASE PRESENTATION

The Challenging Situation

We addressed the challenge of making K-12 learning joyful and holistic, and from the very beginning, introduced measures to ensure curriculum integration took place. Several innovative learning methods and administrative practices were introduced. Learning was imparted to students in a way that was engaging, fulfilling and sustainable.

Research by notable sources suggests that only 53% of graduate students in the Indian education system are considered employable and only approximately 27% are able to get jobs as per estimates. A key reason for this is the lack of skill set development, ability to express, poor communication skills, and a lack of conviction. Educational institutions have to ensure soft skill development from a young age itself.

But how does one ensure this considering the rigours of the academic curriculum, limited time for instruction in day schools, and

large volumes of students? On top of that, how can learning be made joyful and engaging for students? It is undoubtedly an arduous task that BVB Raipur has tackled commendably through its Cross-functional Curriculum mechanism.

Problem Analysis

At BVB Raipur, the leadership analysed these problems at the very inception and realized that the only way to tackle them was to introduce rapid and lateral changes to curriculum transition. Small incremental changes to curriculum dissemination weren't going to solve such a mammoth problem.

Integration of left brain and right brain skills at every step of the educational trajectory of students. Allowing lower order thinking skills such as memory and its application to translate into higher order thinking skills. An overall emphasis on ensuring collaboration among educators with the optimum utilization of technology. Providing students with the opportunity to develop multiple intelligences in the immersion learning phase as per Howard Gardner's Theory of MI making a conscious effort to make learning joyful at every step of the way were looked at as solutions for the problems.

It is important for students to learn without actually realizing they are doing so. BVB Raipur's Cross-functional Curriculum has been able to ensure this.

| Session | Students | Sections | Teachers |
|----------------|-----------------|-----------------|-----------------|
| 2010-11 | 167 | 9 | 12 |
| 2011-12 | 502 | 18 | 26 |
| 2012-13 | 1012 | 28 | 42 |
| 2013-14 | 1526 | 42 | 63 |
| 2014-15 | 1817 | 46 | 70 |
| 2015-16 | 1895 | 51 | 77 |
| 2016-17 | 1940 | 53 | 86 |
| 2017-18 | 1983 | 53 | 89 |
| 2018-19 | 1985 | 53 | 90 |
| 2019-20 | 1987 | 53 | 90 |

Objectives

The primary objective at BVB Raipur was to introduce an integrated and holistic curriculum which involved a perfect blend of practical, theoretical and experiential learning. To make learning joyful, the utilization of interactive and engaging teaching methods by teachers motivated every child to grow in multiple areas with a smile on his/her face. The Cross-function Curriculum mechanism was hence introduced.

Planning Done

When the school's philosophy was conceived, the principal established a set of learning objectives for all his educators terming it as the MLL. Ensuring that all academic, co-curricular and extra-curricular learning departments worked together during lesson plan development to establish and propagate learning synergies. Teachers were exposed to contemporary teaching methods including design thinking, flipped classrooms, and Western educational practices. They were also encouraged to look at experiential and kinaesthetic modes of learning with many games, activities, and exercises for students. Teachers follow a reflection based learning system jotting down their experiences on a daily basis.

While the leadership structure was helmed by the principal, along with the headmistress and the heads of departments, educators were empowered at every level. Different teachers were given leadership and responsibility for a range of extra-curricular areas including sports, vocal music, instrumental music, clay modelling, drawing & painting, singing, public speaking etc. which they had to manage along with their academic responsibilities. In many ways, this can be considered as a horizontally vertical decision making system with leaders at all levels. To ensure percolation of the school culture, a mentorship system was established. At a curricular level, a minimum level of learning (MLL) was defined based on tangible parameters for every student grade not only for academics but also co-curriculars and extra-curriculars. Lastly, steps were taken to introduce clubs for co-curricular learning such as SPIC-MACAY,

Model United Nations, art etc. and time was allotted to them in the regular academic schedule for all students. A continuous feedback mechanism to assess the learning impact of teaching techniques and the response of the students to them has also been administered to ensure learning is joyful.

SUCCESS CRITERIA

There were 2 major criteria to assess the success of BVB's Cross-functional Curriculum. Firstly, the incremental growth of students in multiple areas of learning with their performance in local, national and international competitions. The focus was not simply on the level of prestige of an award received but the number of students who were able to achieve these a must for a high volume school ensuring development of all its students. Secondly, analysing the number of students who pursue more than one extra curricular activity while excelling in academics by the time they reach Grade 12.

Based on these criteria, the Cross-functional Curriculum has been a huge success. Over 90% of the students pursue multiple extra curricular activities while also exhibiting satisfactory academic growth by the time they reach Grade 12. Additionally, the school continues to win several laurels which have been elaborated upon in the later part of the case study.

IMPLEMENTATION AND CHALLENGES FACED

The Cross-functional Curriculum was introduced in the school from the very beginning. While teachers took some time to adapt to unconventional learning methods and collaborate to ensure holistic education, they were incentivized and were provided encouragement. An initial resistance to change was soon replaced by acceptance. With the student volumes in consideration (over 2000 students), students in different grades and sections were divided into small blocks for different learning areas and their growth was assessed through internal as well as external examinations. Remedial measures were implemented accordingly. The assistance

of external experts and resources has also been taken to set and monitor learning systems.

It is extremely heartening to note that the Cross-Functional Curriculum has been a huge success at the institution. Today, students learn history through Model United Nations; they are learning aspects of science through lego and robotics; English and literature is taught through various modes of public speaking and communication; and environmental science is taught through social service. It is safe to say that the Cross-Functional Curriculum is a huge success.

EVIDENCE OF SUCCESSES AND BENEFICIARY SATISFACTION

There are multiple evidences of the success of Cross Functional Learning. In spite of having primarily first generation learners in a still developing city like Raipur, the school has received multiple laurels. In the field of sports, students have secured medals in the Asian Youth Games in sports like taekwondo, badminton, basketball, korfbal, aerobics and yoga. In the field of science and mathematics, the school is among the most pre-eminent ones in India. Students regularly win awards at the CBSE national level science exhibitions, INSEF and IRIS meets, and other Tech Expositions organized by the IITs. BVB's students have gone on to represent India at international science exhibitions and Olympiads. One of BVB's students has also received the National Child Award for Exceptional Achievement 2017 from the President of India for his contributions to science.

Similar achievements exist in the fields of public speaking, social service, music and art. A comprehensive list of the school's achievements have been provided in the appendices. The satisfaction levels of the students and parents is omnipresent. Students who have graduated continue to return to school to serve it in different ways while parents trust the school with all aspects of student development. A few testimonials have also been provided in the appendices.

CONCLUDING REMARKS

BVB Raipur has been able to establish a sustainable and joyful learning environment through its Cross-function Curriculum strategy. Learning is inclusive, community oriented, and serves the requirements of the 21st century while ensuring all students in a high volume school like BVB Raipur are able to benefit from the positives of this curriculum system through seamless transition, comprehensive planning and most importantly a quest to ensure that learning must and always should be joyful!

Sustainable Inclusion

“Education is the manifestation of perfection
already existing in man.”

—Swami Vivekananda

Building the Emotional Quotient

MADHU MAINI & SANDEEP THIND

INTRODUCTION

Being a teenager has never been easy. Describing them as moody or hypersensitive is a cliché. In the new millennium, amidst unprecedented prosperity, growing up seems to have become more trying than ever for Indian teens. It is at this stage of life where one goes through many intense emotional upheavals. While anxiety and sadness aren't new phenomena among adolescents, the trend shows that there's been a significant increase in the percentage of young people, between the age group 12-20, who claimed to have had a major episode of depression.

According to WHO inputs, one in four children in the age group of 13-15 years suffers from depression. Those suffering from depression find it difficult to come forward and those around them find it difficult to recognize it. The lack of a safe and non-threatening environment combined with a general disregard towards the severity of the issue, in this case, depression, makes it difficult for adolescents to speak up. In this emerging context of emotional problems that the teenagers are going through, it is indeed noteworthy to see the school support the initiative of the students who have come forward to face this challenge head on.

CASE PRESENTATION

The Idea of the 'Teen Club' was born out of our desire to help their (students)' who were going through or had been through depression. It was painful for us to see some of them leave school due to depression. Those suffering from depression were finding it difficult to come forward and those around them found it difficult to recognize it. They could sense that the issue at hand was very grave but

couldn't much until they were prodded by their principal and teachers to do undertake a project to find a practical solutions for this crisis.

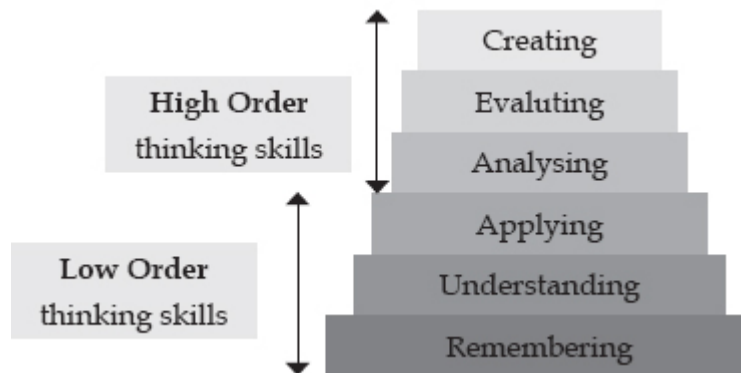
Analysis of the problem

The students embarked on this ambitious project with a survey to ascertain how real the need was and to ascertain how best they could serve those in this situation. The survey did shed some interesting light on the scope of the problem of depression, and how rampant it was in their surroundings.

Key Highlights

The survey was done amongst students from grade 10-12, both girls, and boys. 89 people responded to the survey.

The survey covered respondents from around six cities and as many as 19 schools



Asked to state one word that describes depression the top three words that the respondent chose were

- Loneliness (12 respondents)
- Anxiety (9 respondents)
- Stress (8 respondents)

The above data was also verified by the reasons stated by respondents who claimed "feeling left out" or "lack of friends" as one of the primary reasons why people went into depression.

After defining depression when asked how many of them had been through depression as many 44.9% claimed they underwent depression and around 19.1% claimed they were going through one.

Incidentally the statistical data matched with the government data on depression

It was also ascertained that out of the total cases of depression only few sought the help of a counselor.

Though the sample size was small, the data did help the project. We knew that it was a small step to resolve a mammoth crisis at hand but albeit a step in the right direction.

Objectives

Based on the survey¹ report the students decided to focus on Creating a safe environment, where adolescents could have someone to talk to and seek counsel from without feeling intimidated or embarrassed.

It would provide a creative space to engage constructively and build their reserves to withstand the challenges life threw at them.

They decided to give it shape and a name. A teen club named “Arkadash”, a Turkish word which means, your companion in battle was born.

Planning done

It is one thing to conceive an idea but without proper planning even great ideas fail to see the light of day.

Planning of resources is paramount, along with its implementation. The students first chalked out the mission and character of the club and then the activities that could help them achieve that

Creating support group

It would be a cohort of people formed by adolescent students, teachers, counselors and youth workers with a single aim of providing support to students undergoing depression. The support group shall be guided by the values of empathy, being non-judgmental, confidentiality, genuine friendship, inclusion, honesty and openness.

Self-expression without the fear of being Judged and belittled can go a long way in providing individuals with the opportunity to heal

and regain their hope and purpose of life.

Creative Activities

It was planned that the club will conduct the following activities to engage the participants creatively and meaningfully.

Team building activities to form meaningful and genuine friendships based on mutual trust.

Activities to enhance self-awareness and build self-esteem. The participants get to re-discover their identity, self-worth and self-belief. And, to help them realize that they can make meaningful contributions in the years ahead.

Programmes that are geared towards healing and reconciliation from hurt and complexes. To let go the past and look towards the future with renewed vigor and hope.

Training of students members to become part of the support group in order to help others who are going through a similar situation.

Seminars and Workshops

It was also planned that need-based seminars and workshops by experts to address the topic in detail and empower the students with vital information would be organized.

To show testimonials of people who have overcome depression to motivate the participants not to give up and believe that they too can do it.

Success Criteria and possible alternatives decided

The success criteria for this club was that the students who come once would want to come again and acknowledge the need for help and take help. The alternatives which were looked upon was to increase the scope of the teen club to extend its services to students who were not going through depression but were struggling emotionally.

IMPLEMENTATION

One of the key hallmarks of this venture is its cost effectiveness, making it an economically viable option.

For Space and furnishings: The School Management was generous and supportive enough to provide the club with space and furniture.

Fellow student volunteers gave their time to create hand crafted décor and contributed for refreshments.

The school also provided the audio-visual equipment's and list of experts whom the students could contact to be their resource person.

Every session was planned for the theme and the activities to be conducted.

The volunteers were divided into teams to take care of different roles like, putting up posters, announcing the club timings, coordinate refreshments, decor and follow up with the resource person, record feedbacks etc.

The students coordinate with the school facility team to arrange the room and the necessary infrastructure.

The activities were screened for relevance and content to motivate with the help of a mentor guide.

Challenges faced in implementation

Time crunch due to participation in many school activities.

Regular sessions and facilitators for long term were difficult to come by.

The creation of an appropriate session plan due to lack of experience with such sensitive issues was telling.

Resources involved (both Human and Material)

Space: a room of about 20 x 45 feet which would be enough to accommodate a batch of 20 people. It would also have space for a bookshelf and some bean bags and chairs for people to sit and a study desk.

Décor: lighting, motivational books, a pin board to put up quotes, plants, carpets, sound systems, projector systems, and banners.

Volunteer Youth Workers and NGOs like 'Pravaah' that specialize in working amongst young people to be part of the resource personnel.

Student and teacher Volunteers from the school who could form the support group.

List of parents who are into training life skills, counselors and psychiatrists who could be invited to share their expertise.

Stationery to conduct activities and make membership forms, badges and pledge cards.

And refreshments to go with the occasion.

SPREADING THE IDEA

The students went around various schools across the city of Jaipur to spread this idea with the intent to replicate this teen club model which could help a movement in schools. The schools which the students covered in Jaipur were Sanskar School, Delhi Public School, Two Jagriti run schools and some Government Schools.

CONCLUDING REMARKS

The goal is to support teenagers to improve their emotional well-being and empower them with a positive outlook on life. This endeavor has created a platform and a safe environment for students to speak their mind without fear or hesitation so that in time they are strengthened to overcome depression.

Most importantly, in my findings I can see the paradigm shift that is taking place in the way these students are looking at depression, not as taboo but something that requires their genuine attention. If this venture which is running for two years, is replicated in other schools in the city and later to other parts of the country, the potential to become a mass movement will usher an empathetic society which does not turn a blind eye to those who suffer in silence. I believe that

this simple, yet effective idea could create a radical change. I look forward to seeing this project spreading its wing beyond the school.

GLOSSARY

1. Arkadash- Turkish Word meaning Your Companion in Battle
2. Depression -A mental sickness, feelings of severe despondency and dejection.
3. Pravaah - An NGO that works with young people to motivate them to live life to the fullest.
4. Jaagriti- An NGO in Jaipur that works for the upliftment of the down trodden and the poor.

KEYWORDS FOR SEARCHING ON IT PLATFORM

1. JPHS Teen Club
2. Arkadash

Education for the Visually Impaired

AYESHA VIJ, V. CHAITANYA & MUSKAAN BHATT

INTRODUCTION

Inclusive education is about embracing all; making a commitment to do whatever it takes to provide each student in the community- and each citizen in a democracy- an inalienable right to belong, not to be excluded. Inclusion assumes that living and learning together is a better way that benefits everyone and not just the children who are labeled as having a difference.

At Tagore International School, Vasant Vihar we believe that 'inclusive education is quality education'. This belief stems from the observation that classrooms are not only a place of learning but also an empathetic support system for the students with special needs and allow them to stand shoulder-to-shoulder with their peers by placing them in an environment which provides them the same opportunities to flourish as other students.

It is from this ideology that Project Drishti originated. It is inclusive quality education that we strive to provide to visually impaired students through our Project. The SDG 4 sets the goal of providing quality education to all, since education provides the base for a better future. As students, we have ourselves received this quality education, we understand the edge that it provides us. We want to ensure that everyone regardless of any special needs, be provided with the best possible education for a better future. Hence we chose sustainable development goal 4 as the base for our project.

CASE PRESENTATION

Identification of Problem

After discussions with visually impaired students in our own school and also the students and teachers at the National Association for

the Blind, we came to the realization that while inclusive classrooms are very helpful in creating a supportive and empathetic environment for everyone, the visually impaired students are often not able to share the same experiences and take part in the same activities as others. Hence we have decided to take a three-pronged approach to ensure that these students too have a fulfilling classroom experience.

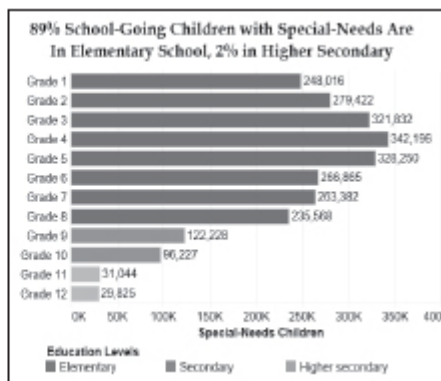
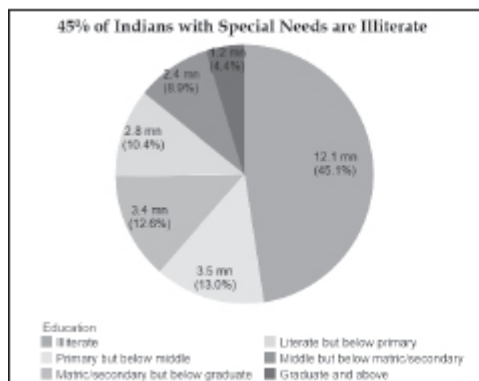
Analysis of Problem:

Early in our research, we realized that the state of quality education for the visually impaired was not at par with that of mainstream students. As a result of this the literacy and employment rates of those with special needs was also very low. The cause of this is not only low awareness among the parents of students with special needs but also the lack of resources to provide them understanding and in-depth learning in school.

| City | School |
|------------|--|
| Jaipur | Jayshree Periwal High School, RBHS, Jayshree Periwal International School, Seedling Public School, SV Public School, St. Xavier’s School |
| Chandigarh | DPS, Model School, Gurunanak Khalsa, GMC, Sacred Heart School |
| Jalandhar | Apeejay Public School |
| Meerut | Army Public School |
| Delhi | Army Public School, Loreto Convent |
| Amritsar | The Senior Study |

Seeing these statistics, we saw that provision of educational tools and other resources would go a long way in enabling students to pursue higher education, and hence become empowered youth who contribute positively to the society.

Objectives



Planning Done

DIGITIZATION OF BOOKS

This project has been taken up by the NGO Saksham where individuals are paid to digitize scanned school/ university level books. These books are then converted to audio books or books with larger fonts. As a school that is well equipped with 2 state of the art computer labs, we have trained students from senior classes to digitize books in our school and have managed to upload 1500+ pages i.e. 7 books to the digital library created by Saksham called Sugama Pustakalaya.

Our students, to maximize the outreach of the digitisation project, have taken it beyond the boundaries of our own school and plan to train students from other schools and conduct digitization drives in these schools as well to reduce the existing deficit of e-books accessible to the visually impaired.

DEVELOPMENT OF TACTILE STUDY MATERIAL

We have partnered with the Centre of Excellence in tactile graphics, IIT, Delhi to develop study material in tactile form. Our students and teachers are working closely with the team at IIT to create the most effective teaching aids based on the curriculum and classroom exercises.

INNOVATION AND IDEAS: (RESEARCH AND DEVELOPMENT)

Navigation Device

Our school has always believed in providing students an environment that stimulates them to use creative thinking and inventions to solve problems they see around them.

In conjunction to this, a team of students of class 10 are developing a navigation device to help visually impaired students to navigate independently around the school. The device consists of a navigation belt that is fitted with ultrasonic sensors, a radio frequency receiver and a voice speaker. Specific locations around the school are fitted with modules which emit unique radio frequencies which are captured by the sensors on the belt and the speaker tells the student his/her location in the school and also how to progress forward to reach a certain location.

Real Time Student Communication App

A team of students are developing a teacher-student communication portal where visually impaired students can use speech to text software to convert their questions to text and send as a message to their teacher in real time, and receive a reply which can be converted from text to speech, and heard by them. This system allows the student to have their doubts cleared at any time, and not just in class.

KRRS

We plan on providing each school we visit a kit which would mainly comprise of 5 components

Geometry Box

We have sourced tactile geometry boxes from Worth Trust to provide visually impaired students with embossed geometry tools that include a scale, a compass, a set square and a protractor. We believe math is a subject that holds great importance especially in early stages of learning. Therefore by providing them a tactile geometry kit we would like to ensure that they don't miss out on the important topics of Geometry.

Maps

Maps have been an important part of the human history for a long time; possibly from past 8,000 years. Hence, students at our school are working on making embossed Indian political and physical maps along with a World map with the help of a Spur Wheel.

Colour pencils and Tactile colouring books:

Students at our school are developing colour pencils along with a tactile colouring book so that the VI students under the age of 6 are able to identify the colors present in our surroundings, and have the same art and craft experiences in primary school as other students.

Games

We are working on making common games accessible to the visually impaired in collaboration with the Centre of Excellence in tactile graphics, IIT Delhi.

Tactile Diagram and Concept books

We plan to compile the tactile diagrams from the curriculum in one book each for Math, Science and Social Science that can be used by the visually impaired students, and include it in the kit.

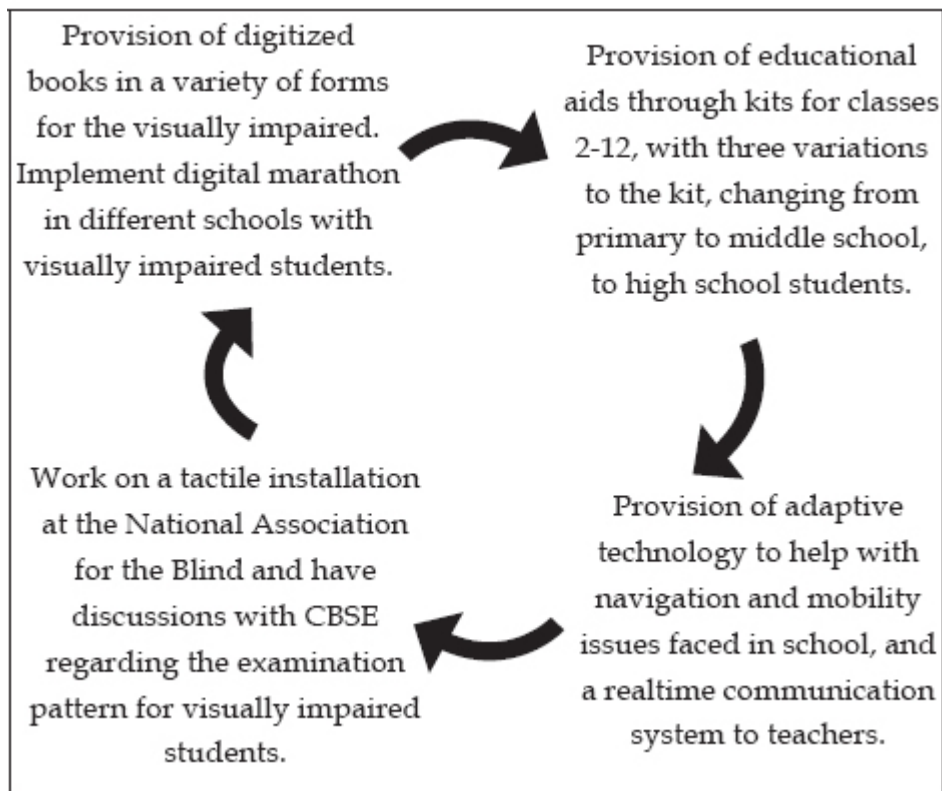
DISCUSSIONS WITH CBSE

Through talks with senior visually impaired students at our school we understood that they face problems when it comes to giving exams. They are expected to use writers while giving exams, but on a regular basis quite a few of them use laptops to type out their notes and listen to audiobooks. They have expressed that they find it difficult to articulate to an examiner and would prefer to write their exams themselves on a computer.

Also, in the social science exam, instead of mapwork, visually impaired students are provided alternative questions. But in the scenario that tactile maps are available, they are eager to acquaint themselves with the embossed maps and attempt the questions that others do as well.

We want to approach CBSE with these requests, and aim to bring about changes which will put visually impaired students at an equal footing with other students.

Time and Action Plan



Successfully accomplished

IMPLEMENTATION

Impact of Digitization Marathon

Total no. of pages digitized : **6188**

Total no. of pages digitized : **6188**

Total no. of students mobilized : **445**

Challenges faced

The challenges mainly were in terms of resources as the project was completely carried out by students. There was paucity of time with students, and paucity of funds, which was overcome through crowdfunding and bake sales.

There was also an issue with the general acceptance of the current state of sub-par education for visually impaired students, which we sought to rectify through our project.

Future Plans:

- Development of 3D soundscapes for visually impaired students.
- Setting up a tactile corner in the kindergarten class at NAB
- Expanding the digitization marathon to more schools
- Developing other educational tools useful to visually impaired students in inclusive classrooms.
- Working with Centre of Excellence in Tactile Graphics, IIT Delhi, to help develop tactile diagram books

A Dream Come True

SONAM AGARWAL SACHDEVA

INTRODUCTION

Inclusive environment at school is a process involving changes in the way schools are organized. This includes changes in the curriculum and teaching strategies, to accommodate the range of students with special needs. Inclusion deals with accepting children from different backgrounds. The school provides a pleasing learning environment with a spirit of sharing and caring, creates close bonds between teachers and students. It is a holistic learning experience to develop those attributes and qualities of heart, head and hand which will make the students self-reliant individuals and fine human beings.

The ultimate aim of Inclusive education is to bring out the potential of each child. It helps children who are unable to cope with heightened academic pressure by providing them with a platform to nurture their talents, work creatively, establish meaningful relationships and live with self-confidence.

Children with Special Needs need a holistic approach which stimulates their senses and creates synapses to code, store and retrieve information for better understanding and learning. They understand better with experiential learning. Rote based learning is obsolete and does not address the concerns of children with special needs.

Who are children with Special Needs?

Children With Special Needs (CWSN) are students with long term physical, mental, intellectual or sensory impairment which in interaction with various barriers restricts the students effective participation in learning. Today these students are called “Students of Determination” as it portrays the will and commitment of these

students to overcome all odds. These students are identified through one or both of the procedures listed below:

- Through the work of a specialist or school team, as displaying almost all of the characteristics of a particular category of impairment, delay or disorder.
- Formally diagnosed by a qualified and registered medical/psychological professional as having a long term difficulty, impairment or disorder.

OUR AIM

- To identify the category of disability.
- Provide information as required by regulatory authorities.
- Promote effective planning for CWSN to reduce barriers to learning that they may experience.
- Inform the development and implementation of process and procedures for inclusive education improvement.
- Development of a more comprehensive understanding of their needs and abilities and implement a better approach.
- The information collected should serve as a important reference for school. This will promote implementation of better procedures to assess and identify the needs of CWSN and develop and promote provisions that maximize opportunities for learning and inclusive practice.
- To create an equitable and just environment at school where diversity is accepted and appreciated by all.
- To be able to lead and lend support to other schools in the hub to identify, plan and execute inclusive practices.

VISION FOR SCHOOL 2030

- Health
- Rehabilitation
- Employment
- Universal accessibility
- Social protection

Barriers faced by CWSN due to their condition in participating in mainstream education

- Delayed academic, behavioral, social and emotional development.
- Limited attention span and poor retention ability.
- Issues with the ability to listen, speak, think, read, write, spell or do mathematical ability.
- Delayed or limited speech and language development
- Difficulty expressing ideas and feelings
- Difficulty adapting to change
- Underdeveloped spatial awareness
- Restricted mobility
- Behavioral problems
- Sensory issues
- Delayed motor skills
- Medical conditions
- Problems in developing peer relationships
- Low self esteem and emotional resilience
- Attitude and acceptance by others

AREAS / STEPS OF PLANNING FOR AN INCLUSIVE SET UP

Sensitization at Management Level

The school has a visionary Principal with a forward looking management that has eminent people in the field of mental health and Rehabilitation. A progressive management is a key to success.

Building infrastructural facilities

The school has ramps which are well connected to the play ground, canteen, laboratories and other important areas to ease movement of CWSN and participation in day today activities. The school has an elevator to ease movement of children needing support. The corridors have anti skid tiles. The windows have sliders to prevent kids getting hurt. All rooms have signage and the emergency exits are marked. Important announcements are made over the speakers for all to hear. Apart from circulars all important

messages are conveyed through an appropriate message over phone. Smart boards are installed in all classrooms to make teaching and learning an interesting process. A resource room called “Haath Mei Haath” Learning Centre is located on the ground floor to support CWSN.

Induction programme

The school management decided to allocate 3% seats to CWSN at the entry level i.e Nursery each year. Apart from this the school was already taking 25% EWS/DG/ students. The school also welcomes reference from various agencies such as the Spastic Society, National Association for Blind in Delhi. The school faculty is also trained in-house to be able to refer children at risk in general category admission for parent awareness and follow up of intervention.

Sensitization of school faculty and support staff

Regular workshops and seminar are part of capacity building for teachers. We have joint summer and winter seminar for 2 days in continuation along with other workshops for the specific needs of teachers from various mental health professionals.

Peer sensitization and Parent community support

Children are our reflection and grasp from their environment. We at Springdales try to create an inclusive culture where all are equal and accepted the way they are. Each class is a living example of diversity with children from different economical backgrounds, caste, religion, different learning needs, national, international and various family structures. Children explore and enjoy the plethora of activities, sensitization and awareness programmes which helps to build in peer support for each other. Parents are orientated from time to time and are also invited to be part of resource support on important occasion and feel the culture at school.

Mainstreaming

It was decided that all CWSN would be part of their age appropriate class. They would engage in all class activities as per their level of

functioning. The right support and intervention at school can often help the child achieve success later in life by fostering child's strengths and working on his weaknesses. At School each child must be respected for his individualistic qualities and is given the flexibility to develop and perform at his own pace.

Resource Room support

A resource room to plan and support the function and aid learning of CWSN was placed on the ground floor. The room is called the "Haath Mei Haath" Learning Centre. The room is placed at a approachable place to aid functioning of CWSN at junior, middle and senior school. The centre is well equipped with Teaching learning material and technology to aid and support students. The special educators work with CWSN and help to bridge the gap in their learning.

The following are some of the main functions of the Resource Room-

- Plan Curriculum
- Deliver Instruction
- Grade / Evaluate
- Mentoring
- Create / Adapt Materials
- Facilitate Test Modification
- Provide Emotional Support
- Create I.E.P.
- Create Behavior Modification Plan
- Implement Behavior Modification Plan
- Adapt Instruction
- Assess Student Progress
- Keep Records
- Parent Communication
- Develop Instructional Strategies
- Re-Teach / Reinforce Lessons
- Peer buddy support
- Implement I.E.P.

Support System Nursery-Class I

- All Children with different abilities receive support from special educators for curriculum and skill based enhancements.
- Focus is on building adaptive skills to enable them to follow school routine, inculcate classroom behavior, participation in class activities at the same time focus on their individual learning needs.
- Students come in small groups as per their level of functioning to the Learning Centre for their sessions.
- The Special Educator visits the classroom to further aid integration of the child in the ongoing classroom tasks.

Support System-Class II-V

- All Children with different abilities (CWSN) receive support from special educator for individual skill enhancement and curriculum building to fill in the gap.
- The syllabus is modified and reduced for the students who are unable to cope with class curriculum.
- An IEP is designed for students for students who are still learning to be class ready.
- Stress is laid to help students complete their on going classwork.
- Simpler and modified test are prepared for students.
- Peer buddy support is available within the class along with Special Educator's visit to further foster learning and work completion.

Support System-ClassVI-VIII

- The syllabus is modified and the students receive relaxations as per the CBSE guidelines in middle school.
- The students are exempted from 3rd language and receive help from the Special Educator for Remedial teaching and work completion.
- The Special Educator makes classroom observations to work on classroom behavior and foster work completion.
- Students with mild to moderate conditions(Cognitive Deficits/Autism /Down Syndrome and Severe Learning Disabilities)

are guided further to pursue Open Schooling and prevocational skills.

Support System-Class IX- XII

- The students are exempted from various subjects and are encouraged to take up functional and performing arts according to their interests and abilities.
- The students receive relaxations as per the CBSE guidelines in higher classes.
- Extra time for Paper Completion
- Scribe/ reader if recommended by the Psychologist and teachers.
- Motivating students by checking papers with sensitivity to his/her level.

Generating Learning Support group as a resource for CWSN

The school has planned a unique programme to generate support system within its community. Peer buddies in each class support CWSN within and outside the classroom. Mentoring programme where senior students of grade XI come to the Learning centre daily as per their timetable to support CWSN under the guidance of special educators in their respective classrooms and at the Learning Centre. Shadow helpers for children with moderate to severe challenges are taken in from the vocational centre SwaShakti which trains economically weaker section parents with vocational courses such as English conversation, nutrition and meal planning, beauty culture and Computer Literacy. The school has tried to generate resources within the school community.

Assessment and Evaluation

The school follows Comprehensive Continuous Evaluation till std VIII. It adopts flexibility in assessment and evaluation of CWSN but generates similar report cards for all students. CWSN follow mainstream curriculum, reduced or modified curriculum and even functional curriculum as per their level of functioning. Test papers are modified as per the planned curriculum for CWSN. However from IXth Std. provisions are given as per the CBSE guidelines.

Promotion policies

All students are promoted as per the guidelines of CBSE. Provision of giving tests and retest to help children master their academic skills and be more confident.

Weaning towards prevocational skill generation

The school has CWSN with mild to moderate to severe challenges hence there are students who cannot cope with the CBSE curriculum and hence are further guided to take up NIOS and prevocational training post std VIII.

CBSE registration for exemptions

The school registers all CWSN with CBSE from std IX as per the rules and provides them with option of vocational subject, Extra time, reader and scribe. Parents are oriented and receive all support from the school in the entire process.

Tracking students placements

The process of Inclusion and our efforts are incomplete if our students do not succeed in getting into purposeful roles further as students into different courses or into a vocation to be independent further in life. Most of the CWSN after clearing their XIIth board get into good colleges to pursue further studies. However CWSN with moderate to severe issues enroll for NIOS and attempt completing their education.

Leap towards completing the circle of Inclusion into a reality

We as a school at Springdales is known for its contribution towards community service has hence made an effort to step ahead and accommodate one of our alumin with down syndrome as a Teacher Assistant after training her for one year.

Inclusive Strategies

- **Building collaborative team**

Vasudheva Kutumbakam' the motto and ethos of our school is a whole school responsibility and all stakeholders play a major part

in its implementation. Bringing together school staff, students, parents and Old Springdalian to accomplish the goal of inclusivity

- ▶ Working as a team with educational assistants, occupational therapist, communication specialist along with the students with disability and his/her family to set expected goals and monitor progress
- ▶ Conducting regular meetings and interactive workshops with parents
- **Promoting accessibility**
 - ▶ Ensuring accessibility to school building canteen, labs, fields, and activity rooms and class rooms to make least restrictive and barrier free for students with disability
 - ▶ Determining the best place in the classroom to position a student with disability to promote maximum learning
 - ▶ Selecting field trips locations to ensure inclusion of students with disability
 - ▶ Computer technology, hardware and software to support students with disability in their learning.
- **Academic accommodations**
 - ▶ Creating an individualized education program for differently abled student depending their independent level of functioning
 - ▶ Flexible curriculum to include learning of all students
 - ▶ Modified assignments to assess students at different levels
 - ▶ Accommodating various needs of students such as large prints, MCQ, oral tests.
 - ▶ Creating alternative means of testing
- **Creating inclusive environment**
 - ▶ Encouraging inclusion in all areas and activities of school
 - ▶ Encouraging students to support each other through collaborative approaches such as peer tutoring, buddy system, mentoring by senior students, cooperative learning and co-teaching
 - ▶ Creating support system for students and teachers through a resource room generally called the learning centre

- ▶ Encouraging students with disability to actively participate in all school activities and functions as per their capacities
- **Encouraging relationships**
 - ▶ Evolving student teacher relationship by giving opportunities to participate in various extra-curricular activities in and outside school
 - ▶ Encouraging sensitivity and respect among students and teachers by using appropriate language students with disability
 - ▶ Giving opportunity to students to work collaboratively in working out solutions to make school barrier free and enabling their learning by making them work in groups of abled as well as the CWSN.

Encouraging the use of technology and support services

The learning centre at Springdales known as 'Haath mein Haath' has been functioning since more than a decade. It is a well equipped resource room which acts as a strong support in achieving the goals of inclusion in mainstream school. The room is well staffed and equipped with the following:

- Technologically upgraded- a smart board and 4 computers along with a printing and photocopy machine are installed in the room to serve to specific learning needs of the children. CD-ROM software, programs that use speech, graphics, pictures, audio and video that helps students to interact with computer programme as they solve problems and make choices.
- The centre provides assistive technology to overcome individual barriers in print, communication and in learning. Students who have problems with reading and writing can use assistive technology such as phonetic programs, variable-speed tape recorders, audio-books and publications, devices that read printed books aloud such as text-readers.
- Students with writing difficulty can use word processing programmes, spelling and grammar aides, student-writers to organize their thoughts with the help of Graphic-organizers and writing process.

- Multi-sensory teaching material to teach children with special needs. Alternative keyboards to give better stimulus to students
- Speakers and headphones to work with children in group and individual settings. Proof-reading programs along with Speech recognition programs are a good aid to special needs students• A occupational therapy unit to support the sensory needs of the CWSN

Challenges in the process of Inclusive Education

- CWSN with moderate to severe challenges are unable to sit through a mainstream classroom and participate meaningfully in the process of learning.
- We lack alternative curriculum for different disabilities and it is not justified to teach all CWSN the same standardized syllabus.
- Most of the CWSN with intellectual deficits, Down syndrome, autism etc cant cope with regular CBSE board exams hence need to be weaned off to prevocational courses and NIOS.
- CWSN need to be ready to be mainstreamed. They need to build basic preacademic skills and behavior in the absence of which it becomes a challenge to justify the teaching learning process.
- Teachers may not be equipped to handle each of the disability especially the moderate to severe ones. • Parents of severe CWSN are not willing to mainstream their ward initially.
- Parents of regular students are anxious about having CWSN. Children in their wards class.
- The process of Inclusive and barrier free education needs extra funding but this cannot be generated from parents.
- Attitudes and stigmas revolving disabilities.
- CWSN may at times be excluded from personal social gatherings organised by their peers.
- CWSN at times develop poor self esteem when they are unable to cope in mainstream classrooms.
- Often doctors advise parents for individual therapies rather than schooling which keeps CWSN away from schools.

- CWSN sometimes feel uncomfortable due to the age relaxation given at the entry level- they may appear to be physically taller/ bigger than their peer in the same class.
- Frequent change of faculty disturbs the CWSN as creating rapport becomes difficult for them.
- At times CWSN are given too much attention by teachers and students in school which makes them attention seekers and dependent.
- CWSN need to be empathised and not sympathized.

CONCLUSION

The aim of inclusion can be accomplished when we create an inclusive society with equal and fair opportunity for all. The youth with special needs must be given a chance to be a part of a global cohesive economy and thus contribute to self and the community to achieve “Vasudhaiv Kutumbakam”.

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“I do not want my house to be walled in on all sides and my windows to be stuffed. I want the cultures of all the lands to blow about my house as freely as possible. But I refuse to be blown off my feet by any.”

—Mahatma Gandhi

Digitizing the Future

SUMATI ANAND & GUNEET KAUR

EXECUTIVE SUMMARY

Digital content delivery is opening new possibilities in education. Traditional teaching was delivered in a “one size fits all” manner, which made it easy to leave learners behind. Today though, the technology-enabled solutions help create a custom experience.

But how do you define digital education? I suppose there could be a variety of defining figures, but there are three trends in particular that the digital education trend brings to the traditional teaching methodology - all improve learning outcomes.

Technology in and beyond the classroom for a student has the following advantages:

Allows students to manipulate information and media to construct their own meanings

- Enables students to share their ideas quickly and easily
- Engages students of all cognitive levels and abilities
- Prepares students to be college and career ready
- Keeping the above things in mind, we worked on the strategy to improve our T skills in the students through various programs, projects and events and inculcating each one of these in our curriculum. It was seen that when technology met the classroom environment and the curriculum, it gave a wonderful result as the students excelled in whatever they did.

INTRODUCTION

Keeping our motto to develop the whole child in every aspect, we started observing and assessing every child for their tech knowledge. Every inter school or inter zonal competition required the

use of one or the other digitized media. Similarly, to get connected across the globe and to share our views and ideas the students must have the knowledge of the best IT tools that would help them to share their thoughts. It required us to identify the students who were well versed with latest technology and would help others to improve with it. This helped us to inculcate technology in our curriculum as a lot of classroom-based projects were involved in which were supposed to be completed with the help of the students and would limit within their curriculum. We also tried to integrate various subjects in our project to make the students understand that ICT is not only limited for one subject but should be used in every subject.

We had also tried to give sufficient knowledge to the students regarding safe cyber space. It is one of the major issues of today that the people online are not safe because of the minor careless mistakes they do. Another thing we have taken up here is educating the parents as well. If the parents are aware of the technology and safe cyber space, they will surely help their children at home to be a good netizen.

CASE PRESENTATION

Identification of the problem

Use of Technology for students' personalized Learning is an essentiality of today. We have always made sure that our classroom lessons are well equipped with ICT tools and the students put in their inputs as well to make the classroom a teaching a better one. This would help the classroom teaching to be more lively and interesting. Although we have always ensured that our school curriculum has a lot of ICT based activities but with the demand of time, some changes were required. :

- Latest Google Tools required more practical explanation
- The sensitive issue of Cyber bullying and cyber safety required more discussion and explanation
- Physical Education that also teaches the students how to safeguard themselves required some technical support

- Latest techniques like attending webinars, creating and using online forms, creating online quizzes, video conferences etc required practice
- Latest software like Sony Vegas Pro, Sound Forge, DJ mixing, Photo Editing Software, Movie Making software etc required a lot more practice specially for various inter school competitions.
- Parents education regarding latest technologies and cyber safety was a main agenda
- Debating on various ICT related topics was also required

Analysis of the problem

On analyzing the problem, it was observed that for many of the tools we had planned to take up, the systems required a lot of upgradation. After it was done, the next step was to prepare the students. The issues were small but important to be taken up. It required a lot of preparation and planning and resource upgradation. The resource person also had to be technically well equipped. On the whole, the problem was broken up into small modules and then considered.

Objectives

- To make our students well versed with the latest technologies and to make them understand the importance of ICT.
- To make students and their parents aware of cyber safety
- To enable students to use technology for personalized learning

Planning

The first thing we did was to create a team of students and teachers. A club named TECHOPIA was formed which included five student members and one teacher. This team was to plan everything for the project and to ensure:

- Involvement of maximum number of students
- Involvement of maximum number of teachers and parents
- Taking minimum amount of time
- Inculcating the latest technologies and helping the students excel in them

- Involving maximum digital media and tools
- Taking the best resource persons for lecture delivery

Success Criteria and Possible Alternatives

It is not possible to measure the success especially when it comes to learning technology. But still, we organize various competitions to see how much the students have understood. In case, if the child feels one software is difficult for him, he/she is taught another software of the same category.

Implementations

For this project, a lot of activities, sessions and competitions were conducted. These were implemented from time to time:

a) Learning Google Tools

When we talk about surfing the internet or searching something online, the very first name that comes to our mind. A workshop organized in the school premises. A workshop “GO GOOGLE” was organized for students of IX and X.

The resource persons for the workshop was, Mr. Gurpreet Singh, Area Manager, KIPS Publication and a Google certified educator. During the two hours session, the students were told about the settings that can be made in g-mail account. They were also taught to design Google Forms and share online. The next tool taken up was the YouTube and how we can upload and download videos from it. The students were also told about the settings that could be worked with while using YouTube. A brief introduction of Google slides and Google sheets was also given. The students made their own Google Docs and shared them online. The settings to give authorization and rights while sharing a Google Doc were also discussed.

The workshop concluded with a brief introduction of Kahoot. The students made their own online quiz using Kahoot. They will now be participating as Google Web rangers and use these tools to create their own projects.

b) Learning various Latest Software to improve themselves

The students of standard V onwards were taught various new software including Sony Vegas Pro, Minecraft, Alice, Scratch etc. helped them to be more digitized and confident in tech world.

c) Creating Films and other projects for The school

One of these activities include making movies for the school. This enhances the digital skills of the students. The students have produced a lot of movies for the school which were a part of various inter school competitions and national level events. The concept enhance technical, creative, communication and production skills in the students. Apart from these movies, the students also are well versed with web designing, game designing and animations. (A few movies, poster and games are attached along with).

d) Participating in various inter house and inter school competitions

The students participate in various inter school and inter house competitions which are digital based. These competitions develop a sense of competitive spirit and enhances the techno skills of the students. The various events involve game designing, LOGO designing, programming, brochure designing, e flyer designing.

TINKER FEST: Recently Tinker Fest was organized in which the students participated in various techno and Robotics events. This event was hosted by Gyan Mandir Public School and is an annual event in which the students of around 50+ schools across Delhi, NCR participate. It is purely a techno based event and inculcates IT skills in the students. Many programming, robotics, circuit designing events are a part of this mega event.

e) Creating and Filling online forms

The students of our school register themselves for various online projects where they discuss what they knew about various social issues and how can they help preventing the same around them. The form consists of various different questions. After learning

how to fill online forms, they were also taught how to create their own Google Forms.

f) ICT in Robotics

The students have developed their brains in the field of Robotics as well. There are many sensor and mechanical bots that have been created by the students. These creations require programming in software like Arduino and C. Various sessions have been organized for the students to learn Robotics.

The students test their knowledge in various inter school events and perform well to win many accolades.

g) Students Learnt how to be a part of a WEBINAR

A webinar was conducted recently where the students of classes 6th to 12th had an enriched interaction and discussion with Dr. Samir Parikh, the Anti Bullying Program Head at Fortis Mental Health Hospital. This webinar was conducted to built awareness, sensitization and an understanding on Cyber Bullying. The students also discussed about various issues related to cyber bullying in and out of the school premises. It was overall an enriching experience to be a part of this webinar.

h) Celebrating International Youth Day (Being safe Online)

Seminar: Safe Space for Youth

Keeping in view, the UN Volunteers India, organized a seminar for the students across Delhi, NCR, at Indian Habitat Centre on 9th August, 2018. Five students of our school, along with a teacher attended this seminar. The aim of this seminar was to sensitize the students about their online security and safety. The opening session was taken by Ms Marina Walter, Deputy Country Director, UND. She discussed about the prominent work done by UN Volunteers and how they have brought in a secured change in the thinking of the youth. Ms Kaushiki Negi and Ms Sudamini Sharma, the active workers in the Delhi University panel shared their experiences on cyber bullying and cyber harassment. It was followed by a group activity by MASH Project and Cyber Peace Foundation in which they divided the audience into eight different

groups and discussed various issues related to cyber space. The session concluded by Panel Discussion on “Building a Safe Digital Space for Young People”.

i) Parents Session

The students of GMPS put in another effort for this endeavour when the anti-bullying squad of GMPS, conducted a session for the parents on cyber bullying. This activity was conducted on Saturday, 6th October 2018 during the open day of the school. Many renowned principals and teachers from various other schools of Delhi were also present for this event. The main points discussed in this session included:

- The students talked about how the parents or their children are not safe online.
- They discussed various anti-social activities going in and out of the school and online which can distress their children.
- The session aimed to educate everyone present there about various anti cyber activities and what all protocols they should follow while being online.
- There were a lot of enthusiastic parents who wanted to know about the Cyber World and its pros and cons and how one can be safe online.
- There were more than 400 parents who cleared their queries from the students and went home with a positive thinking about the cyber world.

j) Security and Technology

The students and their parents are made aware on regular basis for their safety. In the same concern, the school has taken up another digital initiative where learning sessions were conducted for the students and parents. Keeping the safety of the individual and the school has always made efforts to indulge in activities that make this world a better and a safe place to live in. In concern with the same, we have joined hands together with Delhi Police to promote safety measures that one should take. Delhi Police has recently launched an online app called the “HIMMAT PLUS”. Our

school has joined the hands with Delhi Police to promote this app. The students and the parents are taught the working and importance of Himmat App. This has helped the students to learn and use the technology to make a safer move.

k) Organizing Computer Literacy week:

Computer Literacy Week is organized every year to sensitize the students about the tech ethics and the latest in the tech filed. A lot of activities take place in this time period. Special assemblies, inter house competitions, learning new technologies, workshops, webinars, discussions etc are a part of this week.

l) Debating on a never ending topic

Various debate competitions are being held where the students seek on various ICT topics to learn more about the techno trends. The most common topic discussed among the students include:

- Technology: The need of the Hour
- ICT: A replacement for teachers?
- Changing trends of technology
- ICT: A boon or a curse?

Improved the students' communicative, technical, creative, social and verbal skills. The students have also gained more confidence by participating in such debates.

Challenges faced in the implementation

As such not much difficulty came up in the implementation of the program. The only thing that came up was the advanced resources required for this case study. The software that the students needed to learn, require well equipped systems with proper configuration. For this we had to upgrade our computers which will be a beneficiary in the long term for the school. Another difficulty that came across was finding an organization which could clearly explain the in depth of cyber world and sort out students' queries. UN Volunteers organization was an excellent choice and the students were very well satisfied.

Resources Involved

All that was required included a good resource person for the Google Tools workshop, a teacher and a team of n number of volunteering students and parents to learn. The hardware of course was required and a bunch of latest software to be taught to the students.

EVIDENCES OF SUCCESS

Photographs for each event and session is placed along with.

CONCLUDING REMARKS

We have been able to achieve our objective of:

- **Using Sustainable Technology based Quality Education**
The students are given a lot of online sessions and webinars are conducted from time to time to make them aware of the various anti social issues and how they can deal with it. They are also prepared to make use of technology for their personalised learning.
- **Inculcating E-Learning**
Students are trained to make presentations and videos for learning of concepts.
- **Using Innovation and Technology**
The students are given hands on practice to work with google tools.

KEYWORDS FOR SEARCHING ON IT PLATFORM

Techopia, GMPS, Safe Space for Youth, GO GOOGLE, IT Volunteers, ICT, Himmat App, TinkerFest

Innovative Learning Practices

“The purity of life is the highest and most authentic art to follow.”

—Mahatma Gandhi

Q R Codes for Molecular Structures

UMA SRINIVASAN & FLORENCE JOHNSON

INTRODUCTION

Being a science teacher and Microsoft innovative educator (MIE), I prefer integrating technology in my class room teaching as and when possible.

I also try creating an environment in the classroom which acknowledges learners as active participants in the learning process always.

Through this activity, I fostered the understanding of molecular structures of carbon compounds using digital tools and tactile learning methods.

After teaching the Carbon Compounds chapter, students watched a video on the same and were then given enough practice in drawing the structures of carbon compounds.

Later an outdoor activity was held, through which they made the structures (Hands on activity) of carbon compounds using dough and tooth picks.

Students used QR code reader app to read the names of the hidden structures and made the structures.

I could see the happiness on my students faces they integrated technology with the kinaesthetic method of learning.

CASE PRESENTATION

Identification of the problem

Mostly students find it difficult to understand the concepts when they are taught only by frontal method of teaching.

Analysis of the problem

There are three types of learners viz. visual, auditory and kinaesthetic. A teacher must use methods to address all these learning styles to keep children motivated and successful.

Students who normally don't show interest in frontal learning could be active participants when all three styles are mixed appropriately.

Also use of technology enhances and supports the educational environment. It creates opportunities for students to complete the given work with satisfaction and happiness. So, teachers have to design innovative methods or strategies to address all these components.

Objectives

Use of technology and strategies that address all three learning styles effectively.

Planning

- Deciding a grouping strategy to group students. (This is done after the concept is taught orally and by using videos)
- Converting text (names of Carbon compounds) into QR codes.
- Facility to read QR codes
- Arranging resources for making structures.

Success Criteria

All groups can complete making at least ten structures within a period. (40 Minutes)

Possible Alternative decided

Extra support can be given for those groups which need help in arriving at the structure of the Carbon Compounds. (Peer teaching).

Implementation

- Concept taught, student watched a video and practised drawing the structures of carbon compounds.
- Students played a game called finding a partner (video and photos attached) to fix the groups for tactile learning.

- Names of the structures are converted to QR codes and the same are printed in flash cards.
- Tabs with QR code reader apps were given to each group to read the QR codes.
- Wheat dough, tooth picks, newspaper and water were arranged for students to make the carbon compounds.
- The QR cards were placed at various locations in the open ground (samples).
- The whistle was blown for students to start the work of scanning and making the structures hidden in QR cards.
- The structures of those carbon compounds were made using the necessary materials.
- The compounds made were displayed with their names.
- The group that made more number of compounds within the stipulated time were the winners.

Implementation of all three methods of teaching done successfully

- **Auditory:** Teaching of the chapter
- **Visual:** Watching a video and drawing the structures of the carbon compounds
- **Kinaesthetic:** Making the structures using dough and tooth picks.

Challenges faced

- Children were so enthusiastic which pulled other students of other classes beside them and therefore controlling became difficult.
- Some groups were running short of their resources and so couldn't complete their task on time.
- The clearing away of the area after the activity was difficult as the dough got stuck to the floor.

CONCLUSION

- Through this activity the students were able to:
- Convert text into QR code
- Read QR code using QR code reader/scanner app.

- Know the structures of the functional group present in each carbon compound.
- Know the number of bonds present between any two carbon atoms in a carbon compound.
- Make the geometrical shapes of the various carbon compounds that are read from the QR code within the stipulated time using dough and tooth picks.

Apart from all these, technology which is the need of the hour is being effectively used in pedagogy.

Design Pedagogies

ANITA DATTA

INTRODUCTION

Universal Design of Teaching Learning (UDTL) is followed in our academia which empowers the pedagogues to identify the behavioural pattern of the students and bring about changes in them emotionally, physically, intellectually, socially, mentally and spiritually. It is framework that provides all the students equal opportunities to learn and grow. UDTL paves way for better learning outcomes and ensures meaningful access to the integrated curriculum with an inclusive learning environment. Most of the renowned educational institutions, which pursue the holistic approach of education, execute UDTL as a part and parcel of their curriculum.

UDTL is based on the three basic principles

- Multiple means of representation-give learners various ways of acquiring information and knowledge
- Multiple means of expression-provide learners alternatives for demonstrating what they know
- Multiple means of engagement-tap into learners' interests, offer appropriate challenges, and increase motivation

On the basis of these three principles students are facilitated and provided with ample opportunities to acquire information beyond the textbooks. They are encouraged to research on a particular topic and find out the relevant additional information with the help of the instructors.

The learners are encouraged to participate in the learning activities with enthusiasm and zeal. In this the role of the educator is to just kindle the hidden interests of the child and provide with the most apt situations where the child can express his/her talents.

IDENTIFICATION OF THE PROBLEM

She then observes the children by conducting the tests and interacting with them. The children seem to face the difficulty in doing the basic calculations due to their average level of understanding ability. It is when the teacher feels the need to adopt the UDTL system to ensure that slow learners are able to understand the concept clearly. Under this system, the teacher plans the activities, worksheets, lessons and other tasks systematically as per the needs of each child under her supervision and implements them very carefully.

ANALYSIS OF THE PROBLEM

A teacher knows her/his students' behaviour, learning ability, understanding level, emotions and other aspects very well and strives hard to bring about a huge change in them. After the identification of the issue, our teachers, in their mind, segregate the students as Low Achievers, Mediocre and High Achievers and plan the activities accordingly. The segregation remains confidential. The teachers are able to understand the children better and work with them in the specified area where they need more attention. This way the need of every child is fulfilled and the teacher accomplishes the desired learning outcome.

OBJECTIVES

The objectives of solving the learning disability are:

- To ensure that each and every child interprets the concept clearly.
- To enable the child understand the importance of the subject or the language in which it lacks zeal and to develop in him/her the sense of appreciation for the subject.
- To make the child realize that the subject is not a mere subject, its has various uses in real life situations and to motivate the child to confront the real life situations with the help of it.
- To develop the knowledge, skills and attitude to pursue higher studies in that particular subject and develop abstract, logical and

critical thinking of the child.

- To make the child realize that a particular subject does not stand alone and it can be integrated with other subjects also. For instance, mathematics with Information Technology.
- Moreover the most significant aim of teaching learning is to prepare a child to live a successful life in this competitive world which is full of hardships and challenges.

SYSTEMATIC PLANNING

Our goal is not just to encourage the young talents to learn the subjects and languages but to create life time learners who are destined to reach the pinnacle of success. In order to overcome the individual diversities, students of all the classes, from primary to higher secondary, are identified based on their leaning and understanding abilities. The teachers segregate these students in her mind as Low, High and Mediocre achievers. This segregation remains confidential forever.

The teachers then, prepare worksheets, handouts on various subject related topics, and other learning material as per the category Low, High and Mediocre achievers. We name this method as Achievers method.

We do follow the adoption method in our school.

Another interesting plan we pursue is the Buddy System.

The organized planning ensures the progress of the students in not only academics but also inculcate in them the values that are required to live a sustainable life in the combative society.

SUCCESS CRITERIA

When our teacher plans and executes the activities, they aim at achieving the desired outcome to a maximum level. During the execution of the tasks they observe the children performing their tasks with great curiosity with their assistance. They find that the Low Achievers are able to complete the first section and they try to attempt the next one, the High Achievers are able to complete the

whole task without much difficulty and the Mediocre students are able to do the work comfortably more than the Low Achievers. It is a big achievement for the child and a beginning of success for the teacher. Therefore, it is evident that UDTL is a reliable tool in the hands of our teacher.

IMPLEMENTATION PLAN

Achievers Method

Under this method our teachers divide the students in her mind as Low Mediocre and High Achievers. She then plans the lesson in such a way that all the students, irrespective of the different level of understanding, would benefit from them.

Worksheets are prepared on the basis of the knowledge and understanding ability of the children. For example, a worksheet is divided into three sections, section A,B & C, of which the first section comprises of the basic knowledge questions, the second consists of medium understanding level questions and the last part consists of the HOTS. These worksheets are discussed with the students and are given to them to solve in prescribed time limit. Our teacher discovers that the slow learners are able to solve the first part without much difficulty whereas the high achievers are able to complete the worksheet in no time. On completion the teacher appreciates the students for their efforts and discusses their doubts.

Moreover, this method also ensures the equal treatment of the students and doesn't allow the inferiority complex in them. They feel contented during the peer discussion when they come to know that they have dealt with all sections of the worksheets. In this way, the High Achievers, Mediocre and Low Achievers are paid special attention to make them interpret all the topics clearly.

Adoption Method

This is another method that is followed under the UDTL. Some students are identified as very slow or below average learners who need extra care and attention due to various reasons. The reasons may vary. Some of them may not get proper care at home (parents

may be illiterate), some students, due to insincerity, may not prefer self-study and some students may turn out to be extreme slow learners who take a lot of time to understand a concept or complete their class work. In order to assist these students to overcome their learning disability, the Adoption Method works the best. Under this system, the students (identified as slow learners) are adopted by the teachers as their own children and proper care is taken to ensure class and homework completion, concept clarity, inculcation of discipline and other values.

They also lay emphasis on the school uniform, demeanour, co scholastic activities, discipline, health and others. Even if the Home Room Teacher (Class Teacher) or the subject teachers have any complaint/issue related to the child, they report the same to the 'foster' teacher.

Buddy System

Buddy System is another interesting method that is followed under the UDTL. In this system teachers role is minimized in order to maximize the role of the peers. Under this method, two or more students work together as a single unit so that they could monitor and assist each other. The aim is to ensure the successful completion of work, learning of a concept, learning a skill like painting, playing a sport etc.

The seating arrangement in the class is organized in such a manner that the buddies sit together and discuss the topics. In this manner the children have fun sharing and caring for each other. The teachers play the role of the felicitators who organize the group discussions and ease the learning of the students.

This system helps to promote good understanding amongst the students and offers a great support in learning new things. Students develop a deep sense of superiority complex and positivity once they gain the knowledge of the unknown facts or concepts. This system, in fact, develops the communication skill in the child and makes him/her a better person to deal with the critical situations. It also

helps in promoting leadership qualities and decision - making ability in those students who fear to face the real time challenges.

The pairing of the students is done in a logical manner to facilitate learning without any difficulty. A newly admitted student is paired with an amiable old student to make the child feel comfortable at school. A child with Cerebral Palsy (CP) is paired with two physically sound students to help in his movement. This technique is welcomed by all the teachers and students as it paves way for the achievement of desired learning outcome. With this system students have become more confident, well-determined and enthusiastic.

Challenges Confronted

The more the challenges, the more we learn and develop. The Universal Design of Teaching Learning is no exception in this case. Many challenges are confronted in this area and ways are discovered to overcome them.

In the Achievers Method, time is a constraint as the lessons are to be planned as per the learners' understanding level and lengthy worksheets with questions segregated as per different level of understanding are to be prepared. Hence it consumes more time than usual method of teaching.

When speaking about the Adoption Method, the one and only challenge is the time constraint. Sometimes the teachers, due to their own busy schedule, fail to spend more time with the adopted child. In spite of their busy schedule they ensure that they meet the child at least once a day and converse with it.

In the Buddy System, the children sometimes develop a self-centered behaviour and forget that they are in a group and should work together. The teacher has to be conscious to control this kind of demeanour in them and make them aware that they should assist each other. Hence, the minimized role of the teacher is maximized here.

Despite these drawbacks the pedagogues struggle and make it a point to complete the syllabus on time by following these techniques of UDTL.

CONCLUDING REMARKS

Therefore it can be concluded that UDTL is a unique system of teaching learning by way of focusing on the entire student community of the school. The enjoyment of the students in learning a new concept, the teachers' perseverance in planning and execution and the Principal's guidance go hand in hand in this process. This method has enabled the teachers to succeed in their mission, thus enabling the students to perform better both in academics and life skills. This system is a success as it focuses not only on scholastic aspects but also on values.

Running Diction

Mathew KG & S Lekha Nair

INTRODUCTION

The idea behind learning a language is development of skills especially LSRW (Listening, Speaking, Reading and Writing). This activity involves not only the participation of ALL the students in the class, but also fosters all the four basic skills on language learning.

CASE PRESENTATION

I chose English subject for students of Grade IX. This activity was done post completion of reading the chapter and basic comprehension checks through oral drills. At this stage students are aware of the new words and the gist of the lesson. The two problems that I wanted to address were helping students frame sentences (using keywords) and involving all the students in the class.

Analysis of the problem

In a class of 30, there are a few students (4-6/30) who are spontaneous in answering the questions asked. A few of them (5/30) answer on prompting and a few (5/30) with a little push manage to arrive at the correct answer. I'm still left with 50% of the class who simply listen to others, avoid eye-contact with the teacher to escape answering, or are simply distracted from the task or just stand up when asked or seek help from neighbouring students. I wanted an activity that can cater to all the students in the class and students just ENJOY learning.

Objectives

To enable students to make new connections, learn to answer questions using the new vocabulary, improve the retention capacity, and also have a fun-filled activity.

Planning done

- Identification of learning styles of the students by observing them minutely in the class.
- Categorization of student in three groups on the basis of their learning styles.
- **Seating Arrangement:** Students need to be seated in three rows. They are divided into groups of three. Each group has a Runner (kinesthetic child), Reader (well-versed in making connections) and a Recorder (one with good handwriting).

Time and Action Plan

| | 1-15 Jul | 16- 31 Jul | 1-31 Aug | 16- 31 Aug | 1-15 Sept | 16- 31 Sept | 1-23 Oct |
|-------------------------------------|-------------|------------------|-------------|------------------|--------------|-------------------|-------------|
| Digitisation drive in other schools | | | | | | | |
| R & D for Navigation device | | | | | | | |
| R & D for Kits | | | | | | | |
| Distribution of Kits | | | | | | | |
| Fund raising | | | | | | | |
| Art Installation | | | | | | | |

Implementation/ Execution

Each reader gets a set of questions and keywords/phrases to answer the questions in a slip. The reader has to make the

connections, frame sentences and convey the sentences softly to the runner. The runner goes to the recorder and repeats what he heard from the reader. The recorder listens to the runner and writes the answer in the given worksheet. After the execution of the activity, the reader validates the response written in the worksheet. Variation in choice of words are appreciated and accepted, if the gist of answer is intact.

Note: The runner can neither write the sentences nor ask the reader to repeat the answer.

Example: Class 9 - Beehive - Chapter 6 - My Childhood

Team F: Reader (The following slip is read by the Reader. He frames a response and conveys it to the Runner)

“Abul! I know you have to go away to grow. Does the seagull not fly across the sun, alone and without a nest?” He quoted Khalil Gibran to my hesitant mother, “Your children are not your children. They are the sons and daughters of life’s longing for itself. They come through you but not from you. You may give them your love but not your thoughts. For they have their own thoughts.”

Questions

Why do you think Abdul’s father quoted Gibran?

Key phrases

- Study at district headquarters in Ramanathapuram
- Convince Kalam’s mother

What did he mean by quoting Gibran’s words?

Key phrases:

- Opportunity to live a life of one’s choice.
- Parents should not interfere

Team F: Runner (needs to share the following response, from the Reader, with the Recorder)

1. Why do you think Abdul’s father quoted Gibran?

Abdul Kalam asked his father’s permission to leave Rameswaram and study at the district headquarters in Ramanathapuram. Kalam’s mother was hesitant to send him. He spoke these words to convince Kalam’s mother.

2. What did he mean by quoting Gibran’s words?

Kalam’s father believed that each individual must be given an opportunity to live his passion and parents should not interfere. He wanted his wife to understand that she should let him go and pursue his dreams.

Team F: Recorder (the Recorder listens to the Runner and wrote the following responses in the worksheet)

1. Why do you think Abdul’s father quoted Gibran?

His dad quotes this when Kalam asks his dad if he could go to the headquarters for higher studies. He wanted to console Kalam’s mother and give confidence to Kalam.

2. What did he mean by quoting Gibran’s words?

Kalam’s father said that children should be independent and learn to live their life. He spoke this to Kalam’s mother so that she is able to let him go and live his life. Children should be allowed to follow their dreams.

Approximate Time taken to execute the above activity

| | |
|------------|---|
| Last row | Reader (Strengths:- Framing apt sentences, delivering and efficient time management skills) |
| Middle row | Runner (Strengths:- Listening, memorizing and speaking skills) |
| Front row | Recorder (Strengths:- Listening, interpreting and writing skills) |

Challenges faced in implementation

- Some students do not follow the rules of the game (such as talking loudly, running to save time, etc.)
- Some classes have students that do not fall under the multiples of 3, those extra students also will become the moderators to carry out observations and their judgment is also used to declare the winner)
- The blame game between the reader, runner and the recorder.

CONCLUDING REMARKS

This activity can be used to assess the understanding of the chapter or to conduct a revision exercise. We can also modify the content and implement it across any class, any subject with adequate planning.

For example, in a Mathematics class, we can make the reader, the solvers (solving math problems). The runners can be modifiers (they modify the questions by changing the variables and give it to the recorders to solve). The recorders can be renamed as re-solvers.

Learning Maths Through Sports

ANJALI MALIK, HIMIANSHI, ANJALI, SANA, RISHIJA AND ROMANA

INTRODUCTION

This activity requires the participants to run back and forth between two parallel lines as fast as possible. Participant(s) will be allowed to return to his/her station only after finding the correct answer. The team accomplishing the task in minimum time is the winning team.

Focus on key points

- **Fitness components:** Speed, accuracy, agility & team co-ordination
- **Psychomotor Skills:** Running and balancing
- **Mathematical Skills:** Mental Maths based on four fundamental operations(+, -, x,)

INTRODUCTION

Background for case study: PEC-Physical Education Curriculum is a structural and functional approach to play way teaching across the grades, introduced at primary level by CBSE in 2009, which was the joint venture of UK Sports Trust, CBSE and British Council. Since 2011, our school is religiously following Physical Education Curriculum to add a unique dimension to education.

Context: Shuttle race is used to edify the concept of Mental Maths based on Four Fundamental Operations in an effective manner.

CASE PRESENTATION: -

- **Identification of the problem:** To break the monotony and cater to the needs of kinesthetic learners in a play-way method.

- **Challenging situation:** To make the topic more interesting and to bring variation in classroom teaching.
- **Issue to be resolved:** Play-way method is an effective tool for teaching and learning. Implementing it requires coherent participation of motor and cognitive skills. This requires consistent practice and repetition.

Analysis of the problem

To break the monotony and to bring variation in classroom teaching and facilitate coherent involvement of motor and cognitive skills.

Objectives

To make students understand the concept of Mental Maths based on Four Fundamental Operations.

Planning done

Setting the play-way station, selecting easily available equipments, using step framework.

Success criteria and possible alternatives decided

At the end of the lesson students will be able to use Mental Maths based on Four Fundamental Operations in an effective way in daily life. Students should remove the fear of Maths by incorporating it their daily life so that Maths becomes a habit.

Alternatives

Classroom teaching, you tube modules, videos, worksheets.

Implementation

Students participated with an initial hiccup of amalgamating motor and cognitive skills. With repeated practice sessions and variation in questioning pattern, they gained confidence in executing the assigned task. More practice with variation in the Shuttle Race can enable students to perform better.

Challenges faced

Time constraints, unavailability of equipments.

Resources involved (both human and material)

Students of class III, subject teachers and sports teachers, sports equipments and flash cards.

EVIDENCES OF SUCCESS

Photographs/ Audio/ Video attached

BENEFICIARY SATISFACTION

The Concept was clear and participation of students was evident.

CONCLUDING REMARKS

At the end of the lesson students will be able to use Mental Maths based on Four Fundamental Operations in an effective way in day to day life and sports can be an effective way to teach and learn.

Learning and Teaching English

FR. SANJIV XAXA, FR. LIBERTUS XAXA, K. RODRIGUES

INTRODUCTION

The purpose of this Case Study is to present an overview of various innovative practices adopted by **St. Vincent Pallotti School, Korba (C.G)** towards promotion of English Language in the school. English Language is gaining worldwide popularity and thus the responsibilities vest with the schools to play their important role in this direction. Most of the C.B.S.E schools follow NCERT books published in English. Parents are too keen to get their wards admitted to the 'English Medium' CBSE Schools, not just to complete schooling from there but to develop the communicative efficiency. It's not at all unfair to comment that most of the parents are sending their children to English Medium Schools for becoming proficient in English Language Conversation. Proficiency in English language (Spoken English) could be attained not only from reading English subject but from all other subjects too.

The school takes pleasure in implementing many innovative practices in the classrooms and in the school premises with the coordination of well experienced, trained and innovative teachers. We must admit the fact that teachers are the assets of a school and we appreciate their devotion towards the students and the school. The teachers are working at their liberty to coin and implement innovative and best practices to promote English language in the school.

CASE PRESENTATION

Identification of the Problem/ Challenging Situation/ Issue to be Resolved

It is well said that there is no problem without a solution and there could be no solution without a problem. Identification of the problem

is the first and foremost task of a case study.

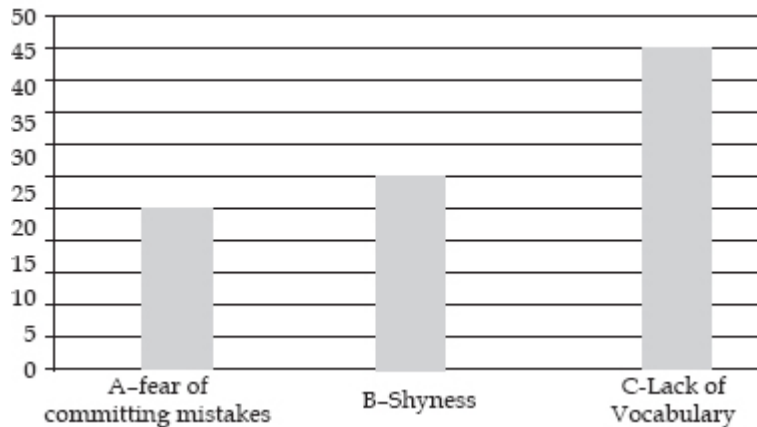
Sets of questionnaire were prepared for the English Language Teachers of the school and the students of classes 9th to 12th. 20 students were chosen randomly from the mentioned classes to participate in the questionnaire and 10 teachers from Primary, Middle and Higher classes were chosen for the purpose. Teachers and students were awarded of the purpose of the questionnaire that it intend to collect data for the Case Study to be sent to C.B.S.E. Teachers and students were assured that the information furnished by them shall be kept confidential.

This is not the first time that school has conducted this type of survey. In the pasts also many initiatives have been undertaken to identify the learning problems of the students and accordingly remedial measures were identified and implemented to sort out the problems. Especially for this Case Study, to be submitted to CBSE, a new questionnaire was prepared to collect data from the teachers and students on English Language Teaching.

Factors Preventing Students From Speaking English In Public 2.1(a).

| Stages | Approximate time |
|--|------------------|
| Instructions | 3 minutes |
| Grouping and sharing printed materials | 2 minutes |
| Activity run time (2 questions) | 15 minutes |
| Summarizing | 15 minutes |
| Feedback | 2 minutes |
| Buffer | 3 minutes |

Common Errors Committed By Students According to Teachers 2.1(b).



Thus comparing both the figures (2.1(a) and 2.1 (b)) which have been prepared on the basis of answers in the questionnaires, indicate clearly that about 25% of students are afraid of committing mistakes, 30% students are shy and 45% students have accepted that they lack vocabulary and hence are prevented from speaking English in public.

Majority of the teachers have admitted that their students lack comprehension and expression in the language. Some teachers have chosen wrong punctuation mark and wrong usage of grammar too.

So, the challenge was how to make the students feel comfortable in their expression and enrich their vocabulary to speak fluently in English.

Analysis of the problem

Analysis of the problem deals with the root cause and effects of the problem. It is to be kept in mind that we can't reach to the conclusion here. From the analysis of the collected data, we may remark that

- English Language has been accepted universally and it's need of an hour to be proficient in its usage.
- Avoiding English Language may have adverse effect on other subjects of the curriculum too.
- Efforts are to be made by the teachers and students jointly to sort out the problem.

- Sometimes parents too tend to be a hurdle in the acquisition of the English Language as it is just a subject for them and their concern is more for other subjects like Science and Maths.

Objectives

As discussed before also, the main objective of the Case Study is to identify the teaching - learning problem of the English language in St. Vincent Pallotti School, Korba (C.G) and coining out innovative ways to eradicate the problem.

Planning Done

In the past also school has witnessed many sorts of teaching - learning problem. The questionnaire developed for the case study is just an illustration of how the school caters the needs of its students and plan out initiatives to be undertaken for rectifying the problems.

- Suggestions were invited from the English Language as well as other teachers, teaching variety of subjects.
- Best suggestions were noted down
- The teachers suggested to have a separate ASL Room for the purpose.
- It was also agreed in the meeting that not only the English Language teachers but each and every teacher should enrich the vocabulary and communication skills of the students.
- Teachers suggested to have separate ASL periods reserved especially for enhancing and assessing Speaking and Listening Skills of the students.
- Students to conduct the morning assembly under the guidance of their Class Teachers. It should include Prayer, Pledge, Devotional Song, Poem, Pledge, Life Sketch of great leaders or famous personalities, skits with moral values etc.
- Teachers to encourage the students and re-enforce them to communicate in English and make the necessary corrections
- Workshops for teachers to be organized for teaching in English

- Interactive Board/ Multimedia to be used by the teachers
- Teachers should communicate in English among themselves.
- The above activities to be monitored by the Principal.

IMPLEMENTATION

ASL Room

St. Vincent Pallotti School has its separate ASL Room for conducting Speaking and Listening related activities by the English Language teachers. The ASL room is in silence zone equipped with a Projector, Voice Recorder and a camera so that the students may assess their pronunciation, vocabulary and body language.

Workshop on Teaching in English

In the past school organized a workshop for all the teachers on 'TEACHING IN ENGLISH' in collaboration with MacMillan Teachers Training services. The teachers learnt to make any topic attractive and interesting by using teaching aids like pictures, charts, audio-visual etc.

Seminars

Seminar is an activity which could be organized in the class not only for English Language but for other subjects too on variety of themes. All the teachers prefer to have a seminar in their subjects as a part of their Subject Enrichment Activities. It makes the students confident. All the students are motivated to present seminars on the topics assigned to them and necessary corrections are done in the class regarding pronunciation or grammar.

Debate

Debate competitions are being organized on variety of topics by the teachers in their classes. Students of classes 9 th to 12 th were hesitant to participate but when they were divided into groups and the first group was told to speak in favour of the topic and the second group against the motion, the students actively participated as they felt competitive then and had to make their teams win. They worked

together and helped each other in preparing points for the debate. Students were able to give up their hesitation and shyness. The teachers observed the students and their errors related to grammar and vocabulary were corrected in the class itself.

English Week and Shakespearean Week

The school observed English Week for the Primary Classes and Shakespearean Week for the Higher classes. The students have had their active participation in Essay Writing Competitions, Skits, Power Point Presentations commemorating the life and works of William Shakespeare, one of the giants in English Literature.

Drafting Question Papers

Topics or lessons are allotted to the students to go through as Home Work. The next day students are divided into groups they draft questions in group. The group leaders read the questions and the members from other groups raise their hands to answer the questions. If they answer correctly then their team gain points and for wrong answers lose points. Students learn to draft questions and enhance their speaking and listening skills. They also learn to express themselves.

Interactive Multimedia

All the classrooms of the school have been equipped with Interactive Boards. The school has signed an agreement with TATA CLASSES for the purpose of imparting education through A.V aids. A.V aids. Contents such as text, moving image, animation, video, audio and video games makes the Teaching- Learning environment interesting and live. It leaves a positive impression upon various senses of the students and they too have active participation in the process.

Report Writing

Students are encouraged to prepare reports of various activities or programmes organized in the school under the able guidance of their teachers and they present the same in their classes. Students are able to express themselves through report writing and presentation. Report is prepared under various heads such as What happened,

When it happened, Where it happened, Why it happened, How it happened and Who was/were involved in the event, they have got to report. It makes the students able to have keen observation of events or incidents taking place in their surrounding. Recently students prepared and presented reports on various themes for Health and Physical Education.

Surveys

Students are assigned with tasks of surveys in the school or their surroundings and they note down the important points on their observations. Later, they present it in their classes.

These are some of the best innovative practices in practice. As we have discussed under the problem head that students and teachers complaint of lack of vocabulary and lack of comprehension and expression, so our focus is always to provide maximum exposures and opportunities to the students to express themselves. In this manner they are able to fight their hesitation and this continuous exposure is also helping them to enrich their vocabulary and learn from their peer groups too.

CHALLENGES

Implementation of the practices involved challenges and hurdles too.

Bilingualism

Bilingualism is the phenomenon of speaking and understanding two or more languages. In the Bilingualism, the mother tongue or first language acquired at home through family or neighbors has a long lasting impact on the students. While making English Language mandated as the medium of instructions, it was a challenge to prepare the students from the local areas and impact of regional language could be observed. However, the students are aided with spoken English Classes to face the situation.

Parents

English Language being mandated as the medium of instructions in the school has mixed response from the parents. Some of the

parents appreciated this initiative, while some of them requested the school management to follow Bilingual medium of instructions as their wards came from other Educational Boards or having no English speaking background.

Parents and students are encouraged to practice English Speaking as it is the demand of the contemporary society. Parents and students too admitted the fact.

CONCLUDING REMARKS

We don't claim to achieve cent percent objective of popularizing the English Language in our school and making it lingua- franca. We have still got to do lot more to accomplish our objectives fully. There are still some students who are being under observation of our teachers to have their competency in improving their communication skills in English.

But the another part of the coin brings a big sigh of relief that our students are now confident and not afraid of their mistakes and freely expressing themselves. They are keen to enhance their vocabulary and could be easily seen reading newspapers and books in the library of the school in their leisure or library periods.

We believe it firmly that we would be able to achieve cent percent competency among our students to have a positive outlook towards English Language and acquisition of it to their best of their abilities. We would like to make it clear that this case study doesn't intend to disregard any language. We want to just high spot the importance of English Language globally and prepare our students to accept it.

Graphic Organizers

UMA SRINIVASAN & VENKATACHALA REDDY

INTRODUCTION

Language teaching is easier only when students read the text thoroughly. And, to make them read the lessons, some graphic organizers have to be provided. Graphic Organizers create curiosity in students to read the lessons and find the information.

There are three compelling reasons for using graphic organizers in the class. First, the students are considerably more likely to understand and remember the content using Graphic Organizers. Graphics help students separate what is important to know from what might be interesting, but not essential information.

Second, students with learning disabilities can easily find out the information using the leading points given in Graphic Organizers.

Third, students are more likely to become strategic learners. Reading and writing skills, communication skills, and analytical, critical, and creative thinking skills are all subject to improve when students learn recognize these patterns of thinking, construct, and use graphic organizers.

CASE PRESENTATION

Identification of the problem

Students don't show interest in reading Prose/Long Reading Text. They find it difficult to read the long Reading Text and Prose.

Analysis of the problem:

Learners in 21st Century are more interested in gadgets and their attention span has drastically reduced. Books are not liked by them. It is very difficult to make students read the lessons. If students don't

read the lessons, what they understand by just listening to the teacher is very little.

Objectives

Use of Graphic Organizers in Language Teaching in order to

- Engage students in reading Prose/Long Reading Text
- Create interest in students to read Prose/Long Reading Text
- Enable students to understand the content well
- Enable students to find out important information in the lessons

Planning

- Reading the lesson and figuring out the theme of the lesson
- Based on the lesson and its theme, choosing a few appropriate Graphic Organizers
- Evaluating the chosen Graphic Organizers based on its suitability to the lesson
- Finalising the Graphic Organizers

Success Criteria

Students understood the lessons better when Graphic Organizers were given to them. And, Graphic Organizers helped the students with learning disabilities to find out the important information in the lessons.

Possible Alternative decided

Students were allowed to read the lessons in pairs, discuss the points and complete the Graphic Organizers. Students with learning disabilities were helped in identification of information using the leading points given in the graphic organizers.

Implementation

Follow the given below steps while teaching Prose/Long Reading Text using Graphic Organizers:

- Discussion on the title of the lesson
- Explanation of the Graphic Organizer
- Students read and discuss the lesson in pairs.

- After discussing the lesson in pairs, students complete the Graphic Organizers.
- Using the completed Graphic Organizers, students explain the lesson to whole class.

Challenges faced

Initially, it was difficult for the students to read the lessons and get the Graphic Organizers completed. Some students requested to explain the lesson and give them the summary of the lesson and then they would complete Graphic Organizer by using the summary. But, the purpose was different. Graphic Organizers were meant to enable the students to read the lessons on their own and identify the important information. Later, they managed on their own. And, now students are confident enough to read any text and find out the information using suitable Graphic Organizers.

Resources Involved

- Suitable Graphic Organizers (can be browsed in internet or books in library)
- Worksheets of Graphic Organizers (or format to be written on board)

CONCLUSION

By using Graphic Organizers in Language Teaching we can create interest in students to read Prose/Long Reading Text. Students found it easy to understand the lessons by filling the information in Graphic Organizers. Students with learning disabilities could also find out the important information using the leading points given in the Graphic Organizers. And, minizies the time of teaching Prose/Long Reading Text. Hence, suggested that the to Language Teachers to make use of Graphic Organizers to teach Prose/Long Reading Text.

Tech Me

V BINUMON

INTRODUCTION

Recent years have seen an increased interest in peer teaching, mostly because of an increased momentum in socio-psychological, pedagogical, economic and political considerations among academic levels. Peer learning enhances active participation and develops skills in cooperation and social interaction and has great potentials for both the student “teacher” and the student “learner”. The Indian Community School, Kuwait, launched an innovative venture Teach Me that requires students to be actively involved in the learning process. A ‘peer’ is a person of equal standing or a match. In education and training, peer learning is viewed as an effective behavioural development strategy.

It has been proven that certain students act as ‘opinion leaders’ and are able to facilitate change in the attitudes and behaviour of their peer group. Peer education works effectively because it is a dialogue between equals. It involves members of a particular group educating others of the same group. It is done in the formal setting of a classroom, Peer education works well because it involves voluntary participation of the students in discussions and activities. Therefore, students are able to learn better.

The main role of the peer educator is to help the members of the peer group to chalk out their concerns and seek solutions through mutual sharing of information and experiences. The opinion leader disseminates new information and knowledge to the others through research, and becomes a role model by practicing what s/he preaches. As the opinion leader and the members of the peer group are of the same age group, they are much more capable of

empathizing and understanding emotions, thoughts, and feelings of the participants, and are subsequently able to relate better.

Participation in the Teach Me venture molds students to become sensitive, open-minded and good listeners and communicators. As they belong to the same age bracket, students are less judgmental and more open-minded. Studies demonstrate that the cognitive processing used to study material to teach is different from studying to take a test, and the peer learners benefit because their peers are able to teach at the right level. Therefore, both parties benefit from this relationship that peer teaching generates.

CASE PRESENTATION

Identification and Analysis of the Problem

Most times, young people often find it difficult to obtain clear and precise information within the traditional classroom environment. Additionally, they may find themselves in a judgmental environment and may shut themselves down mentally. Peer learning helps all students to be a part of an inclusive environment - both in an educational and a social manner.

Due to the deliberate effort taken in preparation of the particular lesson, in maintaining the attention of their peers, instructing them, and receiving feedback, the peer leaders understand and encounter the experience of being on the other side. Given the education field's need to instill in students a renewed respect for the teaching ability, the strategy of peer education is the best possible approach to innovative learning methods.

Objectives

Teach Me was instituted with the primary motive of providing students with a learning space free of judgement and misunderstanding. It is also an objective to increase the social interaction between peers and provide a sense of belonging within the peer networks. Peer Education will provide students with exemplary role models, constructive peer influences and favourable circumstances to develop self-confidence and esteem. It has also

been designed develop listening and communication skills, along with multiple other social skills.

Planning Done

Teach Me was planned by The Indian Community School, Kuwait, as a Teaching-Learning Activity based on a learning experience. A period of time is set aside within the regular school day and two students were given the opportunity to be opinion leaders. The planning involves having a selected student(s) research and become familiar with a particular area of interest, where they will be mentored by a member of faculty. They then become the peer educators themselves and pass on the information to their peers in a way they deem is most understandable. The peer learning sessions are planned around a broad range of activities such as group discussions, brainstorming sessions, and structured activities. The preparation carries the lion's share of the planning.

Success Criteria

An expert, panel of judges, evaluated the performance of the students based on the usage of teaching aids, lesson plan preparation, presentation and class control. Three of the best Teach Me presenters from each classes from class 7 to 12 each were awarded certificates. The success criteria encompassed the leadership skills, motivation skills and interpersonal skills of the peer leader. The ability of the student to maintain the attention of their peers over the allotted period of time, and the ability to facilitate an interactive discussion while successfully putting across the information, was assessed.

Implementation

Teach Me is a learning activity that differs from traditional learning, and roles are reversed. Students are given the opportunity to take up the role of the educator and share information with their classmates in ways that they find most effective. On a regular basis, a period of time is set aside from the regular working day, and it is during this period that students arrive dressed up as teachers and take over

teaching aids and other reinforcements. They are mentored on different methodologies to manage a class. The topic undertaken by the student is based on their current curriculum. They are also mentored on the basics of creating an effective lesson plan for the session. The lesson plans drafted by the students contain various interesting features and innovative techniques and approaches. The lesson plan includes a detailed dissection and categorization of what the student plans on accomplishing every moment of the allotted time.

The introduction to the session is also given a lot of importance. The peer leader is also prompted to facilitate participation by the students. They are propelled into the use of various tools such as group discussions, games, role-plays, case studies and other such activities. They are also motivated to break the class into smaller groups which would provide every student - even the shy ones - to contribute.

Challenges Faced

Teach Me is a remarkable achievement undertaken by The Indian Community School, Kuwait. However, in its early stages, Teach Me is implemented only once a month to a limited number of students from each class. The school currently intends to regularize these sessions once a week, which would give almost every student the opportunity to be a part of this contemporary learning approach. Additionally, the resources offered to the student are limited to those present in the school, and the student is expected to perform the multiple judgment criteria within the limited time allotted to him/her.

Resources Involved

Teaching aids as required by the students were provided. Facilitators and mentors were assigned to the peer educators. Lesson plans were drawn up and drafted by the young teachers. The classroom was ceded to the peer educator for the given session to be used as they pleased.

CONCLUDING REMARKS

Peer learning has existed for a long time, but is taking a novel shape today, to frame the minds of tomorrow's leaders. It utilizes many different strategies that can be used in education where students teach other students. It has taken up many forms such as collaborative projects, study groups, and discussion seminars among others. The Indian Community School, Kuwait, has ventured upon this form of learning to help its students develop skills that are necessary for the holistic growth of a student.

Love of Books

REVANTHY PARAMESWARAN & JYOTHI VENKATACHALAM

INTRODUCTION

Reading is one of the four skills required for language acquisition. It develops imagination and creativity. Reading exercises the child's brain and enhances concentration. It helps in building vocabulary and improves understanding. Reading is important because words - spoken and written are the building blocks of life. Hence it is our responsibility to kindle reading interest in children.

CASE PRESENTATION

Identification of the problems

It's a known fact that children of today have access to books, but they don't read. This is because they have numerous other distractions - watching TV, playing video games, going for coaching classes, etc. It has also been noticed that even in academics students were not confident to put their thoughts appropriately.

Analysis of the problem

To understand why students were not reading, surveys were conducted. The results showed that only few students were willing to spend time in reading. Most students spent time in reading their course syllabus. Even though some students read other books, they were not able to sustain their interest.

Objective

The objective was to provide a conducive environment for the children where they could fall in love with reading. Thus, the Book Lovers' programme for children was introduced in 2009 for Classes IV to VIII in the school.

Planning

A graded set of books have been carefully chosen by the team for the course of the year, with themes that children might enjoy. The books contain snippets from books, poems and activities. These stories, poems and exciting activities help engage the children enthusiastically. Trained storytellers tell stories to children from the books and motivate them to read. Some of the teachers in school have undergone training to use story telling as a tool to initiate the habit of reading books.

Success Criteria

Criteria for measuring success are as follows

- Increase in the number of children who have started reading books
- Increase in the number of books issued by each child
- Noticeable improvement in speaking and expressing ability of the children

Implementation

The programme may be implemented in the following way:

- In a regular story telling session, the storyteller first, warms up the children to the theme that the story is based on.
- Children share their imaginative ideas in the class.
- Next, the story teller narrates the story in a highly expressive way.
- This enables the children to visualize the story.
- The storyteller then leaves it at a point when the children are curious to know more. Thus, prompting the children to read the book.

The books are issued by the team on a regular basis. After reading the book, children do follow up activities in their Activity Books that is given to them in the beginning of the session.

Challenges faced in implementation

Some of the challenges faced in the beginning of the programme were as follows:

- Students enjoyed story telling sessions, but this did not translate to increase in reading habits.

- Some students issued the books but did not read them.
- Some students forget to return books and it is not available for others when they want it.
- Some students were reluctant to visit the library.

Resources involved

- Story teller
- Activity Books
- Story Books

CONCLUDING REMARKS

This systematic programme has enthused the children to read more. This is evidenced by the fact that, over a period, children have been borrowing far more books than ever before. We are confident that this programme will enhance children's learning abilities and improve their overall performance.

APPENDICES

The Survey

- In order to understand the impact that BLPS has had so far, we conducted a survey to understand the following:
- Attitude of students towards reading
- Current reading levels of the students
- Perception of BLPS (likes and dislikes)

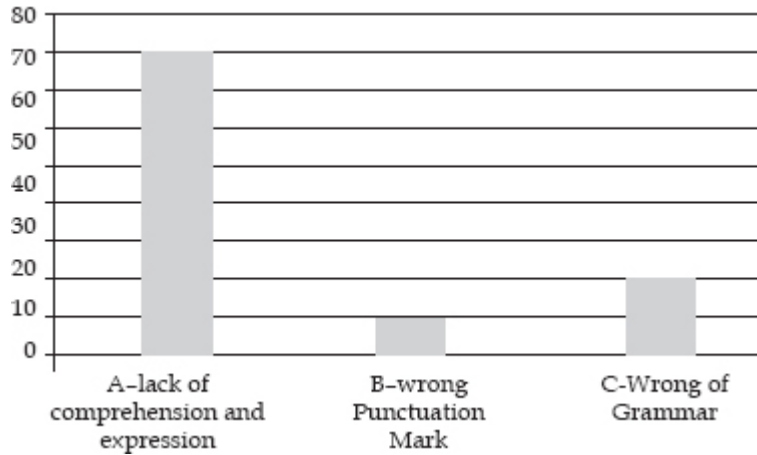
Based on the observations of the survey the team came up with possible recommendation.

The findings of the survey have been attached.

Attitude towards Reading

We tried to measure the attitude of the children towards reading through the following questions: (results below)

How do you spend your free time?



- As expected, more than half of the students love to spend their free time playing.
- A striking 30% of the students would chose to read when free.
- The rest of their time is split between watching TV, using a mobile device, drawing/painting. There is an increased amount of time being spent towards music (listening and playing) in class 8.

How much do you read everyday?

- A surprising 22% of Class 6 students claim to read more than 2 hours a day. We suspect that this number includes time spent on reading school subjects.
- While the average time spent reading by a Class 7 student is said to be higher than Class 8, they are however less likely, given a choice, to spend their free time reading (from Q1) pointing towards some level of misrepresentation.
- Numbers recorded by Class 8 students seems to be more realistic, but on an average, we can assume that around 80% of the students (across all these classes) read a book only for less than one hour a day.

Why do you read a particular book?

| Class | Play | Music | Read | TV | Write | Sleep | Paint | Dance | Other |
|-------|------|-------|------|----|-------|-------|-------|-------|-------|
| 6 | 51% | 1% | 37% | 5% | 0% | 1% | 2% | 0% | 2% |
| 7 | 46% | 1% | 30% | 7% | 1% | 4% | 5% | 1% | 5% |
| 8 | 46% | 6% | 34% | 3% | 1% | 2% | 5% | 0% | 3% |

Why do you read a particular book?

| Class | Play | Music | Read | TV |
|--|------|-------|------|-----|
| I heard a part of the story in class/ from a friend and want to find out more. | 48% | 33% | 39% | 40% |
| I like the author a lot | 42% | 33% | 37% | 37% |
| the blurb (description behind the book) was interesting | 41% | 23% | 33% | 32% |
| I read any book given to me | 16% | 8% | 12% | 12% |

- 30% of the students across classes rely on listening to a part or the complete story before picking a book up to read.
- The title and the blurb attract the students equally. Only if the title is interesting enough, does a student pick the book up and read the blurb. Since both these factors have equal importance, they amount up to 37% of what constitutes the choice of reading a book. The author also determines the choice of book for ~20% of the students. We assume them to be students who read a little bit more than their peers to have an affinity towards a particular writer. (This also means that ~20% of the students read more than the others, which is in line with the % of students who read for more than an hour)

Observations

- The margin for error needs to be kept in mind for these answers as students will tend to over represent themselves.
- A little below 1/3rd of the students are willing to spend their free time reading, but around 80% of the students spend less than an hour reading everyday. Some of the reasons can be as follows:
 - Students don't have enough time to read (explored later)
 - Students like reading but aren't able to sustain their interest due to multiple distractions
- A lot of the choice of reading of students depends on the first impression of the book, the title. Unless a 'boring' sounding book is validated by their peers, or by a storytelling process, it is difficult to create an interest in the book. (for example, Geronimo Stilton is preferred by students who don't read much otherwise for two

reasons mainly - easy language and everyone else is reading them)

Recommendation

- Focus on maintaining interest in the book while reading at home
- Reading tips - speed reading, skimming, timed reading activities etc
- Multiple hooks in the story, classroom discussions - by the BLPS facilitator
- Improving comprehension through reading can help make reading an easier process.

Observations

- There are not more than 3-4 students in a class who enjoy reading and end up increasing the reading average of that class. These students read almost 2 books per month at the least in comparison to 0.5-1.0 books per month for the others
- The other students usually read at ~24% of the avid readers (1/4th the number of books)
- Most of the other students have taken around 1-2 books from the add-on library from the beginning of the year.
- We also notice that as the students move to a higher class, the number of borrowers per class steadily decreases (except the slight jump in class 7)
- We observe that classes that do not read well, unless are specifically intervened with, do not improve their reading.
- We also notice that as students go to a higher class they borrow the book for longer. (Class 8 - ~1 month). This is a timeline that can be worked with as it takes a little longer than a month to finish a theme, but this includes only those students who have borrowed a book. This is why, if we check for the average number of books borrowed (whether returned or not) we see that there is a huge gap.

STUDENTS' PERCEPTION OF BLPS

The objective of this part of the survey is to see how students perceive BLPS. This is important as it will help us gauge how open the students will be to new ideas as well. If they like BLPS, this gives us more leeway to experiment.

- More than half the students across all classes like listening only to stories. This means that the students enjoy the storytelling sessions a lot and also like listening to a story.
- An (almost) equally high percentage of students (except class 7) like playing games in class. This can be because the students perceive the BLPS period as a free period where the objective is to have fun. (Maybe an expectation setting -importance of reading be highlighted?)
- Only ~1/3rd of the students want time to read in class. This number should be around 50-60% (in line with the number of students who like listening to stories). This means that around 70% of the students like listening to stories, but only a little less than half of that number likes to read.
- Other recommendations by the students (a handful) include
 - ▶ Storytelling in a genre chosen by the class (feeling of involvement)
 - ▶ Stories by older Indian authors
 - ▶ Have discussions around interesting facts, relatable topics (sports, fantasy games, movies, etc.)
 - ▶ Recommend books without giving much away - Book club type discussion
 - ▶ Ask the students to do a storytelling
 - ▶ Activities in the activity book, book reports, debates and other group activities
 - ▶ The most popular game recommendations were Contact, quizzes and vocabulary-based games. Other recommendations were riddles, writing activities etc. • Around 7% of the students on an average are not interested in finding out what happens in a story. But the rest of them (an overwhelming 93%) like to find out what happens next, depending on the story. This means that the hook of the story works, and the students want to find out what

happens next, but maintaining that curiosity, to make the students to read is a challenge.

- This can be done through a stronger hook
- Or repeated reinforcement of consecutive hooks
- Issue books when the hook is still fresh
- The other option is have two books per theme, and alternate between the two
- In Classes 6 and 7, over 60% of the students go ahead and borrow the book from the library. In Class 8 however, this number is slightly different. Only around 40% of the students borrow the book that they want to read.
- Time is increasingly a constraint as the students' progress to higher classes. (Explained in the next question)
- Unavailability of the book causes a spike in the graph as a reason for not reading a book, especially in Class 8. This could be because the books were not issued to the students when the theme was going on.
- This shows that the students in higher classes (~30%) prefer taking the book home and reading and making them read the entire book in class may be, in some sense, off-putting.
- Too much rush in the library can be deemed an excuse because the students are allowed to borrow books on all days (except classes 4 & 5).

The two major for not picking up a book are

- The students need to get home early
- Forgetting to borrow a book

One way this can be addressed is by issuing books and taking returns in the class.

- A small percentage of students (~5%) have sports coaching either inside or outside school which doesn't leaving them much time to borrow.
- For students who believe that there is too much rush, either need to get home early or have come only on a Monday or a Friday to

borrow a book. Traffic on the other days in the library is usually lighter.

Students were a little more honest as around 10-15% of those who don't read claimed to not enjoy reading while another 10-15% claimed that going to the library to borrow a book was too much work. (~5% of a class)

This is also probably because the recommended books were not issued over the last few months.

- When asked why the students are busy, an overwhelming majority claimed that school homework took a lot of their time.
- Spending time playing and tuition classes ended up taking the remainder time.
- Other reasons were watching TV, playing on a mobile device, talking to friends, etc.

While a very low % (~5%) said that they don't like the books recommended, the percentage of students who feel that a little bit of revision in the recommended section, increases from Class 6 to 8.

This means that choosing the recommended read needs to be done slightly differently, while the facilitator needs to ensure that interest is peaked.

Observations

- We observe that, while students enjoy and look forward to a BLPS class, the translation to actual reading is much lower. While the students enjoy storytelling sessions, reading is sometimes felt as a task. Because of the effects of video technology, students are used to being given all information and not being made to think/imagine. This is why students prefer if most of the story is told in class.
- Students feel that the books are not accessible to them, even though they are. This is due to a variety of reasons, forgetfulness and reluctance to visit the library also being among the many. Steps to ensure that books are lent to the students when the hook is still in place need to be taken.

- While a majority of the students claim to read one book per theme, it can be safely concluded out of classroom observations that all these students don't end up reading the entire story, unless it is small enough to be finished in class.

Recommendations

- Facilitators need to take extra effort to bring out more relatability in the story or the theme discussion as they are against mainstream social and video media to capture the students' attention. Use current trending topics. Relatability will make the class more interesting.
- Hooks need to be stronger and need to be reinforced across a few classes.
- We would recommend introducing two books per theme. This means that two classes are spent per book for which two hooks being introduced. Books can be issued in class after the telling. There should be enough copies per book, ~15. This will also allow rotation among the two stories across the 5 sections and allow for more books to be issued.
- The follow-up on the return of these books would ensure that the other classes get their hands on this book as well.
- Students like more hooky, thrilling stories. A revision in the books recommended can be looked into.
- Games and activities can be used as a hook for particular stories as students enjoy games
- Location of the telling can be changed for a more memorable experience.

OVERALL RECOMMENDATIONS

Increasing readership - borrowing of books

- Issue of books immediately after the telling, at least for the higher classes
- Multiple hooks per story and 2 stories per theme
- Follow up on returns, subconsciously making them read faster than they would otherwise. We think the lack of a deadline makes

the student lazy to finish reading a book. One way to work around it is by not capping the number of times a book can be reissued, but have a cap at 2/3 weeks for the re-issue which would be non-negotiable.

- Have activities related to the story told in class. This will help have continuity in the sessions
- Have more copies of books as there are ~175 students in each grade.
- Gamify reading - create a points table, star rating systems and rewards.

Improve classroom engagement

- Location
- Modification of story selection
- Genre of stories
- Multiple hooks per story

Having a greater impact on the students' language skills

- Some form of assessment? Some method to quantitatively assess the difference in the impact on students. Asking for the marks in English for example, or conducting written activities to understand the current language levels.

A system to assess a few basic parameters associated with reading on a regular basis can help check how well the program is progressing at this school and the other schools.

Integrate BLPS classes with theatre as a regular interaction with the students will help in active involvement in the stories/books and have a direct benefit.

Work with lower classes - Classes 1-5, as reading along with BICW books can be ensured with visible improvements.

School Partnerships

“A child must be brought up to understand the word no. He should be taught yes first of all, then, yes and no, then no and yes, in such a way that he gradually comes to realize, that there is really only no. A child’s education is learning to understand no, and this enables him to grow. Growing up means accepting the concept of no.”

—Swami Prajnanapad

Capacity Building for Parents

SEEMITA PANDA & NADIA MOGBELPOUR

INTRODUCTION

An effective parent-teacher partnership can make a significant difference in a child's education.

Bringing schools and parents together improves academic and social success for a child, that is why BLOSSOMS developed workshops that are endorsed by all the parents as successful. Our workshops cover a variety of topics of interest to all parents and take place in an interactive manner.

With the skills and strategies learned during the workshops, parents can help children grow in confidence and resilience. We show parents how to get children to cooperate more, to communicate more, to try new things and to persevere - as well as how to do well academically and socially. Parents learn how to support children in academics, artistic and sporting endeavours - without placing undue pressure on the children.

CASE PRESENTATION

Identification of the problem/challenging situation/issue to be resolved

It was observed that the parents are not much in tune with their roles and responsibilities as parents. They were facing a lot of challenges in raising their toddlers in particular. Every parent had its own ideas about raising their child which were not appropriate at times. They were not aware of the age related problems of the children and therefore could not face the needs and requirements of their children. To know the child's mental and emotional changes is inseparable aspect of parenthood.

Analysis of the problem

The problem was identified by the teachers as well as the management of the school, that the parents are not able to understand different needs of their young ones. It is not only that they are not able to help the children with their studies, but also cannot fulfill the emotional needs of their children. Some of the parents have not been studying in English medium schools and therefore are not familiar with the methods and approaches of teaching language to the children. At the same time some of the parents are so busy with their own daily activities that they neither have the time nor have the idea to update themselves with latest techniques and findings in the field of child psychology.

Objectives

The objectives of the parents' workshop were as follows:

- To familiarize the parents with what has been taught to the children at the school
- To familiarize the parents with aspects of child psychology and related issues
- To help the parents to have better understanding and accord in their own family
- To help the parents to realize their vital roles as they embark parenthood

Planning done

It was planned to have a workshop for parents once in every two months. Each time a topic would be selected and the parents would be informed about the date and the topic. Therefore those who were interested would enlist themselves as participants.

Success Criteria and possible alternatives decided

It was decided that every time a minimum no. of parents should be present to begin with the workshop. The teachers of the school were also requested to join the parents in order to make the workshop a success. The discussions would be more meaningful when the

teachers were involved as they were also working with the children in day to day basis.

Implementation

The decision was implemented and the list of the workshops and the topic was announced each time for that particular session. In most of the cases a power point presentation would make the presentation more attractive and interactive.

Challenges faced in implementation

Main challenge initially was the participation of the fathers, as mothers were coming alone but gradually the fathers also participated.

EVIDENCES OF SUCCESS

BLOSSOMS conduct 3 hours workshops with group size between 30 to 50 participants. Parents get the opportunity to take part in group discussion, activities and presentation on a particular topic.

BLOSSOMS SCHOOL conducts workshops for the parents which focused mainly on their role in making their children “THE BEST” and on “JOYFUL LEARNING” and “EMOTIONAL DEVELOPMENT IN KIDS”, “EARLY YEARS OF CHILDHOOD AND FAMILIES”. They were briefed about the methodology adopted and also about innovative ways to develop their kids. Their queries were also addressed in the workshop.

What to discuss with the parents

Here are some practical suggestions to make the conference as productive as your child needs it to be:

- Don't take school for granted. Talk to your child about his or her experiences on a daily basis.

Asking, “How was your day?” is a good, open-ended conversation starter. However, you also need to ask specific questions about aspects of school, ranging from your child's social life (“Who did you play with at recess?”) to academics (“What did you learn in

science today?”).

Ask what your child likes and doesn't like about school, and what is and what isn't challenging. Parents who understand school as their child experiences it are in a much better position to coach, encourage or intervene properly.

- Discuss your questions and concerns with your spouse a week before the parent-teacher conference.

Identify the information you wish to impart to the teacher. Make notes to remind you of key points to cover during the actual conference.

Review reports and check your files from previous conferences to see if they remind you of important topics you may have missed. Be clear in your own mind about your child's strengths, weaknesses and appropriate goals.

Identify both challenges and the gains your child seems to possess as a student and as a social person.

CONCLUDING REMARKS

After the workshop mothers realized that elaborate toys, expensive computer programs, and special tutors aren't the answer. There's much that parents can do themselves to stimulate a child's imagination, nurture his confidence, and encourage a love of learning.

This may be as simple as continuing with things that are already working at home and school, or it may involve restructuring homework, creating a special study space at home, arranging for tutorial assistance or making sure a child with a learning disability receives extra time necessary for test-taking.

Social Empowerment through Action

JASMEET CHANDOK & CHITRA

INTRODUCTION

Education is not learning of facts but training of mind.

Literacy is the back bone of a developing nation. A literate nation is free from any kind of slavery and open to varied arenas of progress.

Springdales School, Pusa has always inspired students towards working ethically with compassion, conviction and commitment. We stand in solidarity with the marginalized and strive to walk hand in hand with them in their struggle for a life with dignity.

Our Vocational Centre “Swashakti” is now in its fourth year. Our centre lays stress on vocational training of neo-literates to facilitate linking the literacy. Livelihood generation has been initiated by making women self-reliant economically. This has been done by providing training in making Paper Bags, knowledge of Food Preservation methods and also helping the beneficiaries source the produce to the local markets.

Twenty adults for each course - Computer Application, Basic English & Beauty Culture are awarded certificates each year. They also participate in the Dance and Song Competition as part of the DSLP Literacy Week Activities year after year. A stall is also put up by them at the Annual Winter Carnival.

We are also working with Saksham an NGO and helping them in digitalizing books so that the visually challenged can have access to all print material.

Our students visit B.L.K Hospital and help out at the various departments.

Regular visits, pairing of student and Grans, organizing talks, street plays, celebrating festivals and tree plantation are the various

programs held at the Bridh Ashram and Mahila Ashram, New Rajinder Nagar.

Our students work relentlessly with the beneficiaries from our twin adopted communities i.e. Dasghara and Todapur where we hope to attain 100 percent literacy through our Each One Teach Many Program in the coming years. In collaboration with Springdales Education Society our 32 adopted Grans are provided with Ration, pocket money, utility items and medical care every month to facilitate a life of dignity and independence.

Keeping in view the increase in crime against women Sensitization Programs in the form of Talks, Processions, Street Plays are held in the community.

Door to door survey by students and road shows, have helped in motivating many to quit smoking. The community appreciated our spreading awareness in the area about the evils of smoking, alcohol and drugs.

Ongoing efforts are underway for making them aware of their rights as senior citizens by distributing hand bills. As part of Swach Bharat Campaign our Interact Club members have been active in keeping the school and areas around our various agencies clean by organizing Cleanliness Drives.

At our 2 Teaming Government Schools Swami Dayanand and N.P.Girls Secondary School along with Remedial Teaching of the academically weak students various competitions are also conducted and prizes given out. The school and class bulletin boards are done up with the help of students. Workshops on Fire Safety and Child Abuse were also conducted. Sports events are also organized from time to time. They also visit the Atal Innovation Lab in our school once a week.

Students are sensitized through visits to various NGOs such as Butterflies, Amar Jyoti, Tamanna, National Association for Blind, Cheshire Home, Missionaries of Charity, AkshayPratishthan, Salaam Baalak, Goonj etc.

We have also been organizing Blood Donation Camps and Health Camps every year.

Under the Each One Teach One Project our students were able to make 3973 persons literate last year and have made thousands literate over the years. The slogan Each One Teach Many is to motivate the privileged to understand their moral and social responsibility of teaching the illiterate and making a difference in society.

CASE PRESENTATION

Designing a Community Service Content

The orientation programme for the students of class XI and XII is held in the month of April, at the beginning of the new session. This is a week long program. The objective of the programme is to sensitize the students about social realities and to make them aware about various agencies working towards making a change in the lives of people in disadvantageous situations.

The students are addressed by the Principal, Academic Supervisor and respective Supervisors as to how necessary it is to give back to the community from which they have extracted so much.

They are then briefed about the S.U.P.W options along with information of various agencies and marking schemes by the school social workers. This is followed by the presentation to brief them of the various options available to each class.

Students of Class XII share their previous years' experience of visits and sessions at the various centres.

The students feel connected since it is their own friends (seniors) who are discussing about the programme.

To make the program interesting various Workshops and Talks are organized like Art of Living, Self Defense, Cyber Crime, Organ Donation etc. These help provide an insight as to how a healthy body can lead to a healthy mind and make them aware of the benefits of yoga and self- defense. They are also taken for a

Heritage Walk, Visit to Parliament, Tees Hazari Courts and Various Police Stations to understand the working.

In order to sensitize them visits to various agencies and NGO's are also planned like Salaam Baalak, Goonj, National Association for Blind, Akshay Pratishthan, Amarjyoti, Tamanna, Butterflies etc.

The students appreciate the entire program and agree that it really helps to make the right choice by getting firsthand information of the various Community Projects.

After returning they do a Questionnaire related to their visit every day and write the entire day's report as well.

A Feed Back Form is filled on the last day by them to help better the programme for the next year. After completing 50 hours community service in one session the students are given Certificates. They also maintain a note book and write reports regularly.

Projects Undertaken by the School

- Adopting village Dasghara and Todapur
- Adopt - a- Gran Project
- Empowering Lives - Swashakti Vocational Centre
- Each One Teach Many
- Teaming Government Schools
- Hospital Service
- Caring for the Elderly
- Swaach Bharat
- Making a difference

Adopting Village Dasghara And Todapur

Name of the community: Dasghara & Todapur

Both these communities are adjacent to Inderpuri Post Office. WZ -Block
Total population of community: Approximately 10,000 families

Objectives

- To uplift the living of people at Dasghara

- To provide them a healthy and clean environment
- To sensitize our school children towards the underprivileged.
- To enable students to understand the growing need of learning and issues of numeracy and literacy.
- To allow children to understand the spirit of service and volunteerism and giving back to the school, community and nation.
- To involve school going students in eradicating illiteracy.

Identifying the problems

After regular visits to the community we could identify problems like:
Unstructured colony

- Illiteracy
- No electricity
- Water problem
- No general awareness of their rights and duties
- Health issues
- Unhygienic surroundings

Planning

- Adult education and Non formal education for school dropouts. Remedial Teaching for school students of afternoon shift.
- Orientation talks are held for classes VI- XII in order to motivate them to participate actively in the project.
- Periodical meetings with the volunteers that is one meeting while they are mid - way of a primer and one meeting when they complete a primer which helps to share and understand their experiences and the challenges faced by them.
- Encourage volunteers to educate adults and the learners to proceed for higher education from IGNOU, NIOS.

Implementation

- Number of students working in the community: XI (90) and Interactors (63). Total no. 153 students.

- Classes of students working in the community: XI A, B, C, D, E and Interactors of class IX and X.
- Days and time of school's visit to the community: Days as per school time table - Monday to Friday, approx. 8 to 10 hrs per week as part of SUPW classes.

Vocational

The vocational information centre at WZ-114 guides the people of Dasghara and Todapur with information and helps them to reach Springdales School Pusa Road from where they are put in the right course. Workshops are organized from time to time - Tie and Dye, Best out of Waste, Paper Bags, Rangoli, Mehndi etc.

Social integration

Street theatre, painting competition and exhibition for the children, Intergenerational ties, outings with the Grans, Cultural programs in the community and in School with the grans on occasions like Independence Day, Winter Carnival and visits by International and National delegates to the community for long-lasting closeness and integration and excursions to places of interest like Chattarpur Farms, Birla Mandir, Rashtrapati Bhawan, Akshardham Mandir etc.

Community Development

Adopt a Gran project for inter-generational ties, functional literacy for illiterate adults and school drop outs, English Conversation classes, Soft Skills and Personality Development, Remedial Teaching for the afternoon shift students.

Health

Medical check-up by school doctor and nurse, eye check-up, general health check-up by qualified doctors along with follow up of medicines and Dental check-up by doctors from time to time. Medicines, health drink and Vitamin supplements are collected by students and distributed to the community elderly. Pulse polio campaigns are regularly organized and workshops are conducted on first aid and healthy living by students and doctors.

Adult Education

- The Delhi Schools' Literacy Project (DSLIP) run by Springdales School is an excellent voluntary work through which the member schools along with students, teachers and social workers contribute to the spread of literacy.
- This project was started in 1988 as a Pilot project as an extension of the Ministry of Human Resource Development under the National Literacy Mission
- This project has been in place for 31 years and the programme has greatly expanded in terms of its concept, embracing a wide variety of social regeneration activities in the communities.

Environmental protection

Cleanliness drives and waste management, Tree Plantation by the Interactors of Springdales School, Pusa Road in the Community Park and temple. Importance of water and usage of paper bags instead of plastic bags was spread by the Interactors in the community.

Challenges

- Reluctance of local people when students visited the village as the people there were not ready to accept facts and cooperate to rectify the problems.
- Open/ wide working area: Student volunteers are scattered in different houses at times.
- Limited time allotted: we were time bound for our activities, as students have to be back on time for their regular classes.
- To break their social stigma: like any other rural area, people at Dasgraha and Todapur had their own issues • Lack of man power: as the area was large, we had very limited number of volunteers.

Steps taken to overcome the challenges

- Regular Counseling
- Constant visit to the community
- Interaction with the local people

- Involving them in various activities
- Workshops
- Door to door survey

Achievement since work began

- **Literacy:** Dasghara, 1 literacy center is functional at WZ-118. Here people of the community are taught 3 primers provided by the State Resource Centre along with functional literacy. General awareness is created during group discussions.
- **Social integration:** To create awareness among the people on issues of literacy, health and hygiene, Street Plays and painting competitions are conducted on a regular basis which has helped to mobilize the young and women. The theme is based on schooling and education. The drawings are exhibited in the community so that everyone could see them. A quiz program is also organized by the students on social issues this has helped parents to understand the need for educating their children and subsequently less school drop outs.
- **Community development:** Adopt a Gran Project, Adult Literacy programme, competitions, recreational activities and visits.
- **Health:** Medical checkups by the school Doctor and the nurse, general awareness regarding primary health care and nutrition during discussions. Follow up of the beneficiaries of the Eye camp for cataract operation and after care was done along.
- **Legal Literacy:** Regular workshops have helped the women and adults to understand their Rights leading to decrease in domestic violence.
- **Door to Door surveys, Hand Bills & Talks:** Awareness of Cleanliness, Planting saplings and Waste Management along with decrease in Alcohol & Cigarette consumption.
- **General Awareness:** They have been able to open Bank Accounts and are able to use mobiles. They feel free to use the students as help desks for any other information.

PROJECT ADOPT A GRAN

Total numbers of grans: 32

Name of the place: Dasgarha & Todapur

OBJECTIVES

- The program aims to provide holistic support and a life of dignity and independence to the grandmothers and grandfathers of people belonging to urban slum cluster.
- To help in providing them a sense of empowerment and recognition in their family.
- To enhance the belief of our school motto the world is a family.

Identifying the problems

- We met and interviewed the old ladies in the community
- Children do not stay with them and consider them as burden as they are not of much help to them.
- No source of income
- No health coverage
- Illiteracy
- Deteriorating Mental Health

Planning

- These old people are adopted as grandmothers and grandfathers by our students as a part of our initiative.
- The project beneficiaries to be given financial, emotional and medical support.
- Family histories were taken.

Implementation

- Students of Class IX, X, XI are regularly taken to the community where they interact with the grans. There are 32 beneficiary grans in the project and two student volunteers from Classes IX to XI are attached to each gran. The students who are the lifeline of the project visit the grans and interact with them. They provide socio emotional support and care that has been denied to them by their families and opportunities for recreation.

- Regular Health Camps along with free health check-ups for family members.
- Distribution of health drinks, vitamin supplements, first-aid boxes along with medicines of daily use are provided from time to time.
- Visits are organized to places like Chhatarpur Temple, Qutab Minar, Agra and movie shows.
- The grans visit the school on occasions like School Birthday, Annual Carnival, Independence Day etc.

Challenges

- Choosing the right beneficiaries from the village
- Replacement of old gran due to any mishap
- Making family members understand, once they are out of the beneficiary list due to Grans demise.

Steps taken to overcome the challenges

- Proper scrutiny of each application given by the people.
- Home visits of all applicants from time to time.
- Maintaining files of each beneficiary as the student volunteers will keep changing over the years.
- Counseling of family members.
- Time to time Health Survey.

Achievement & Success

- It has enriched the lives of not only the older people associated with the project but also the students and other people involved in the programme.
- This project has through its component of inter-generational integration broken down caste age and class barriers and has brought the young and old together. The students who are the lifeline of the project bring cheer and joy in their lives through their regular interactions.
- Our students in turn feel that the time spent with the grans in Dasghara and Todapur (urban slum cluster) is like being in one

large family. Many students live in nuclear families and have not experienced the love and care of grandparents’.

- Empowering Lives -Swa-Shakti Vocational Centre

Objectives

- To empower the under-privileged youth and women of the areas adjacent to school.
- To make them economically independent and equip them with functional skills and literacy.

Identification of the Problem

- Over 30% students especially girls drop out of the school by the time they reach class IX and it rises by the time they reach class XI.
- Young girls are forced to early marriage and lead a dependent life.
- They are clueless after the loss of bread earner in the family.
- Due to lack of education, they cannot support their families.
- They are not able to help and understand the problems of their school going children.
- Some of them are left by their husband due to no male child.

Planning

- Swa Shakti means Self Sustenance It is an initiative which has been created for young adults and women.
- Target population was identified
- Pamphlets were made for awareness about the centre.
- Trained personnel were hired
- Students volunteers were prepared for teaching them English and Basic Computer
- A proper space was created for running the course.
- Amount required to run the courses and material requirement.

Implementation

- Motivating women and girls to clear class XII through NIOS, enroll for job oriented courses at our vocational centre.

- For funding co-ordination is done with Springdales Education Society and Old Springdalian Association members.
- It consists of variety of vocational courses which are as diverse from beauty culture, computer fundamentals, food preservation, paper & cloth bag making.
- Soft Skills - English Conversation classes and Group Discussions to help them face interviews and find jobs.
- Two vocational centres are run by the school - Springdales School, Pusa Road and at Dasghara.
- Regular classes are being conducted for girls under the supervision of trained teachers.
- Classes run 5 days a week for three hours each day.
- They showcase their work on different occasions like Literacy Mela, Annual Winter Carnival etc.

Challenges

- Lack of awareness amongst the girls in the community.
- No importance of self-dependence.
- Backwardness in thought.
- Fear of allowing girls/women go out due to increase in crime.
- Steps taken to overcome the challenges
- Home visits in the community.
- Distribution of flyers and pamphlets regarding centre and its facilities.
- Counseling.

Achievements

All students, passing from the centre, get a certificate of completion. Many students from our centre have got good placement in the vicinity near their houses. Some of them have opened their own parlour and are leading a successful life.

- Each One Teach Many

Objective

- This project was started in 1988 as a Pilot project as an extension of the Ministry of Human Resource Development under the National Literacy Mission
- The objective of the DSLP under the aegis of Springdales Schools was to involve school going students in eradicating illiteracy.
- This allows children to understand the spirit of service and volunteerism and giving back to the school, community and nation from which they have extracted so much.
- The literacy program enables students to understand the growing need of learning and issues of numeracy and literacy.

Identification of the Problem

- At present, India's literacy rate is around 74%, which is far behind the UN Sustainable goal of 100% literacy rate by 2030.
- Number of dropouts in schools
- Lack of awareness among parents
- Illiteracy due to economic condition
- Illiteracy is gender biased
- Illiteracy due to social problems

Planning

- The DSLP Resource Centre forwards the requirement of the number of Book Sets after collaborating with its member schools.
- The member schools receive a set of three primers from the DSLP Resource Centre.
- Orientation talks are held for classes VI- XII by the Social Work Department in order to motivate them to participate actively in the project.
- The students are asked to look for learner/learners which include school drop outs, adults, their helpers or their family members.
- Social Workers, teachers of the school take the motivational role and are integral to this entire follow up, collation and distribution. They are always there with the child, strong bonds are created between teacher, students and the community members.

- Parents also play a pivotal role by lending their support towards the cause during vacation. All stake holders are a part of this project.

Implementation

- Primer-1 is distributed to the students and they are asked to make a small folder/ album with the family details of the learners.
- Primer-1 is collected by the Class Teachers as and when completed and then checked after which Primer -2 is distributed.
- Periodical meetings are held with the volunteers that is one meeting while they are mid-way of a primer and one meeting when they complete a primer which helps to share and understand their experiences and the challenges faced by them. We encourage volunteers to educate adults and the learners to proceed for higher education from IGNOU.
- Primer-2 is collected by the Class Teachers depending on the speed of the learner and checked, after which Primer -3 is distributed.
- After the completion of Primer-3 the student holds a 100 marks exam, which includes basic knowledge of Hindi and Maths with Letter Writing as a compulsory question. The parents help by not only providing refreshment to the learner but also ensure the smooth running of the course around the year.
- This is an ongoing yearly programme where children work with the learners throughout the year.
- The Test Papers are collected by the Class Teachers and passed on to the Social Work Department for re-checking.
- Lists with complete details of the learners and volunteers along with the Test papers are then sent by member schools to the DSLP Resource Centre where they are rechecked.
- They are then forwarded to the State Resource Centre, Jamia Millia Islamia for final checking and Certificates.
- Students and volunteers who make more than 20 learners literate in a current year are also facilitated.

- The learners who are not able to complete the course are given time and the submission is done in the next cycle.
- This project has been in place for more than 30 years and the programme has greatly expanded in terms of its concept, embracing a wide variety of social regeneration activities in the communities.

Challenges

- To prepare study material for the non-school going children.
- Illiteracy has made them disinterested towards education.
- They feel shy to be taught by younger students.
- They don't value the importance of education.
- Tend to live the same old life.
- Not receptive to the changes.
- Steps taken to overcome the challenges
- Need based material was made keeping the learners in mind.
- Home visits of the learners.
- Motivating them through talks, counseling, street plays and other methods.

Achievement

Since the inception of the project, we have made thousands of learners literate and have received numerous awards for the same.

Other Highlights

It culminates in a week-long festival at two levels. In the first week of April as an Inaugural of the festival and in September with the Valedictory integrated with the International Literacy Day.

A variety of literacy activities are undertaken during this period which are games, slogan writing, poetry recitation and street plays all take place in a mix of vernacular and English. Students from privileged schools mingle with less privileged young learners from urban slum.

The project helps in creating strong bonds between the teacher, students and the community members.

- Teaming Up of Government and Private School

Name of the Govt. Schools -

Swami Dayanand Sarvodaya Kanya Vidyalaya, Old Rajinder Nagar
N.P. Girls Secondary School, Balmiki Basti

Objective

- To cater to the children of government school
- To provide them better infrastructure.
- To make our students realize the importance of remedial teaching.

Problems Identified

- Background of the students resulting in drop outs.
- Inaccessibility of infrastructure as compared to Private schools.
- Communication skills.
- No extra help at home.

Planning

- The Social Workers paid a visit to the school to meet and explore the areas where they can work and offer support.
- The Principal of the Teaming Schools appointed Coordinators one for Senior School and the other for Junior School.
- The Coordinators visited Springdales School. They met the Principal, Academic Supervisor, Supervisors and Teachers and the Headmistress of the Junior School to understand the working of a private school and in what areas they could take support.

IMPLEMENTATION

- Students of Std. XI visit the school once a week for 90 minutes along with the two Social Workers. They help the academically weak students. English Conversation and Personality Development classes are also held. The students are very happy to converse and meet the students and share Home News as well.
- Spare Bulletin Boards, furniture and Computers were sent to the school as requested. Spare Science Models for their Lab were also

sent. One Smart Lesson per subject per class - Labeled CD'S prepared as per requirement.

- Junior and Senior Annual Day, Independence Day, Gandhi Jayanti, Sports Day and other important event CD's were provided.
- Organized Sports competitions.
- Our school children with the help of our Art teacher painted the walls and doors.
- Helped in English Conversation and Personality Development.
- Conducted Art and Craft Workshops
- Need based Library Corner was created.
- Beautification of the school surroundings, Science Labs, Corridor Boards etc.
- Students of both schools visit the Atal Tinkering Lab ones a week and are provided conveyance and refreshment as well along with hands on experience.
- Participation in various functions like Independence Day, Book Week Etc.
- Hospital Service

Objectives

- To sensitize our students towards the need for healthy living.
- To enable our children hands on experience and understanding.
- To help in reducing the stress in General OPD

Problems Identified

- Lack of understanding among people in General OPD of private and government hospitals
- Lack of man power in assisting patients to the right windows
- Lack of sensitivities towards people using assisting devices like wheel chairs crutches etc.
- Low patience level due to their medical conditions

Planning

- Our social workers paid visits to various nearby hospitals to find out the scope.
- Request letter was sent to the hospital seeking their permission.
- One day per week was allocated for the service.
- Different departments were chosen for students volunteers.
- Students were briefed and sensitized.

Implementation

- Students of class XI and XII visit the hospital regularly.
- They place themselves at various departments and windows at General OPD.
- Our student volunteers help the patients by guiding them to the right window.
- They also help them in filling up the registration forms and other legalities.
- Some of them help patients with the wheel chairs or at the pharmacy.

Caring For Elderly

- Bridh Ashram & Mahila Ashram- New Rajinder Nagar

Objectives

- To sensitize students towards the elderly.
- To teach them respect for elderly
- To provide good quality time and entertainment.
- To assist them to other medical departments like Physiotherapy or get Grocery for them.

Problems Identified

- Old age is considered as a burden by the family.
- They shift to ashrams mostly due to neglected life in the society.
- They lead a secluded life with depression.
- They miss their families and quality time spent together.

Planning

- Two places were recognized for this work
- Written permission was taken from the authority of the place.
- Students were identified for volunteering.

Implementation

- Students of class IX, X, XI pay visit to Mahila Ashram and Bridh Ashram regularly.
- They spend quality time with their grans.
- They keep themselves updated with the health records of grans.
- They organize different fun activities with them.
- Conduct musical program, tree plantation, and cleanliness drive there.

Challenges

- Entry to this kind of place is a major issue.
- Their age and social condition have made them alone and irritated.
- One would have to be very careful while interaction with them, so that one does not hurt their sentiments.

SWACHHA BHARAT ABHIYAN

Objectives

- To take forward this mission in the community.
- To make people aware of healthy sanitation practices.
- To provide clean and healthy surroundings to people.
- To allow our students hands on experience of cleanliness.

Planning

- A recce was done in the nearby local area.
- Selection of working areas done.
- A road map was prepared to execute the mission.

Implementation

- Under project SEWA, our students of class XI & XII conduct social drives regularly in the community.

- Students run a series of cleanliness drives at school and adjoining areas
- They distribute areas, class wise and conduct the drives.
- They also take out procession on the importance of clean surroundings.
- They motivate and make the community people aware about “Swachh Bharat Abhiyan”.
- Students often take part in cleaning the school campus and our adopted community.
- Drives / Talks on segregation of waste, water harvesting, ways of saving electricity, Fire safety etc.

MAKING A DIFFERENCE BY VARIOUS OTHER ACTIVITIES

Blood Donation Camps

- Annual blood donation camps are organized in the school in collaboration with red cross to help the people of our twin adopted villages and our helpers in times of need. Parents and teachers of school are encouraged to donate blood. This has been done under the supervision of trained doctors and blood is collected by the Red Cross Society.
- Our student volunteers help in organizing the event annually and get motivated towards the social work.

Health Camp

- Another annual feature of Springdales School, Pusa Road is to provide quality health care to our class IV employees, their families, learners at our vocational centre and people of our twin adopted villages, Dasghara and Todapur. Expert doctors from different hospitals come and give their services. Our students collect general medicines for distribution among the beneficiaries. People get free checkup done and prescribed medicines and follow ups are taken care of accordingly.
- Our Interact Club members help in smooth running of this camp.

Teaming With Saksham - NGO (Working For Differently Abled)

- Visually challenged people do not have access to enough reading material.
- Our students help in digitalizing books so that the differently abled can have access to all print material.

Fund Raising and Collection Drives for any Disaster

- Fund raising for Armed Forces Flag Day, Indian association for the Blind, National Foundation for Communal Harmony.
- Collection of Woollens - Spread The Warmth Project.
- During flash floods, earthquakes or any natural calamity the school coordinates with the NGO - GOONJ and sends relief material.
- Students contribute towards stitching of Cloth bags from old school uniforms and distribute them in the community.

CONCLUSION

- Literacy is a key for socio-economic progress. Springdales School, Pusa is an active co-participant of the Delhi Schools Literacy Project - Each One Teach Many. Working towards Literacy is a two way process. It adds a new dimension to the volunteer's personality as they develop an understanding of people and the problems faced by the economically and socially deprived. The commitment of students and teachers towards the Literacy Project is very important for the future of our country be it Basic, Functional, Legal or Vocational.
- Our Swashakti Vocational Centre has helped hundreds get good placements thus empowering women in utilizing literacy and vocational skills.
- Our Interact Club members and Std. XI students as part of SEWA, work relentlessly by helping the academically weak students, enabling them to stand tall and realize their dreams for a better tomorrow.
- Workshops on Legal Literacy, Health and Hygiene, Entrepreneurship and Start Up, Art of Living are also organized.

- During the summer vacations a number of students undertook internships with Helpage India, People for Animals, Nazzariya and are working on projects concerned with the Mental Health of the Elderly.
- The effort of the students, teachers and social workers under the guidance of our principal will surely make a difference as community development can only happen through women empowerment and utilization of literacy and vocational skills.

Reinvent Yourself

ANUPMA BHARDWAJ & D K JAIN

INTRODUCTION

Our purpose is to remain relevant and evolve constantly. We continually empower ourselves through REINVENT YOURSELF PROGRAMME. With the belief in ONE FACULTY, ONE VISION, ONE TEAM we endeavour to keep ourselves future ready and try to do justice to our roles as we keep on asking ourselves:

- What Is Worth Knowing,
- What Is Worth Leaving And
- What Is Worth Achieving?

The entire faculty makes efforts with a missionary zeal, in this endeavour, to reinvent themselves.

We have been organizing the Reinvent Yourself Sessions in our Vidyalaya since 2000.

CASE PRESENTATION

Identification of the Problem

We are living in the age of transition in the educational field. The present lot of teachers is a product of teacher centric approach but now we have realized that student centered learning environment is the most effective. The teacher is a mere facilitator who encourages, advises and stimulates the child. This paradigm shift in the field of education must be realized by every member of the teaching community if we wish our students to grow and excel.

Analysis of the Problem

Teachers have an educational responsibility to seek out what is best for their students, and to constantly adapt to student learning needs. The role of teachers in a child's education has changed. Teaching differs from the old "show-and-tell" practices. Today, the seeds of such a dramatic transformation in education are being planted. Prompted by massive revolutions in knowledge, information technology, and public demand for better learning, schools nationwide are slowly but surely restructuring themselves. Reinvent Yourself Programme is a step taken by our Vidyalaya in this direction

It is helping our teachers lead the way by rethinking every part of their job -- their relationship with students, colleagues, and the community; the tools and techniques they employ; their rights and responsibilities; the form and content of curriculum; what standards to set and how to assess whether they are being met; their preparation as teachers and their ongoing professional development. In short, our teachers reinvent themselves and their occupation to better serve school and students.

Objective

Objective is to remain relevant and evolve constantly.

Planning done

Meetings on relevant and latest issues and topics are scheduled regularly involving the entire faculty where all confabulate, confer and concur.

a) Shifting the paradigm

- One faculty, one vision, one team
- Who am I? What is the purpose of my life? 'Am I working towards it'?
- Life is multi-dimensional
- Find a leader in you
- Emotional Quotient vs. Intelligence Quotient
- Cleaning the slate
- Alternatives to corporal punishment
- Observing qualities in others

- 'Kashay par vijay'
- Happiness and ways to achieve it
- Self- realization
- Creating love for the subject, concept clarity and personalized approach
- What is worth knowing, worth leaving and worth achieving?
- Stay motivated
- Child -centric Approach
- Look for the positive

b) Thinking about thinking

- Thinking hats
- The wheel of life
- Self-help groups
- Breaking, Shaking, Making
- Interactive Sessions on standing up for yourself
- Purpose statements
- Self-awareness
- Alignment of Mind, Body and Soul
- Thinking skills and thinking processes

c) Developing the persona

- Reading Habits - an introspection
- Book review sessions
- Goal setting
- Public speaking skills
- Re- skilling
- WOW factors at workplace
- Interactive rejuvenation
- Look back, Look forward, Look around, Look within
- How to bring change in ourselves
- Changing at the micro-level
- Yoga sessions

d) Learning to learn

- Seven Habits

- Schools that Learn
- Life-long learning agenda
- Creative thinking
- Personal growth and work-life balance
- Devising procedures for safety and protection of children
- CCE-Reforms & Implementation

Success Criteria and possible Alternatives

It may not be possible to measure our growth in quantitative terms but if we are able to connect with students through our student centric approach and steer them away from rote learning bringing about positivity in outlook, we consider it a success. We also consider it a success if we are able to -

- Extend individual attention
- Inculcate love for subject
- Achieve conceptual clarity

Implementation

Interactive sessions are organized every month and also on non-teaching days regularly. Programmes such as Charan Sparsh, Jagriti Shivir and Power-point presentation enable us to stay motivated. We ruminate and rethink by using 'thinking hats'. This strategy enriched us through RYS - Reinvent Yourself programme where the teacher's role as facilitator gets accentuated through several brain storming sessions, workshops, seminars, interactive sessions, book review sessions, questionnaires, power point presentations etc. Numerous resource persons have been a part of our enriching journey.

Challenges

It is quite a challenge to orient and align the grownups with the concept and ideology of the RYS program as it involves confronting their belief system but it is imperative to do so to be able to do justice to our roles as educators. Pushing people to embark on a journey within is no less than a Herculean task as old habits die hard and the intellect acts as an obstacle.

CONCLUDING REMARKS

Regular interactive sessions organized in the Vidyalaya trigger a process of awareness raising and concept clarification, which in turn leads to a more in depth understanding of the teaching-learning process. The teachers feel blessed to be a part of this programme as it propels them on a path of

Right Faith

Right Knowledge

Right Conduct

which is imperative for a teacher to be effective, empathetic and stay relevant.

My Mother My Best Friend

RAMMA RAINA & RAMANDEEP KAUR

INTRODUCTION

Our school is run by Bharti Foundation with a mission to impart quality education to the rural underprivileged children with special focus on the girl child. The catharsis of the institution right from the inception has been servicing the children of people belonging to weaker sections and disadvantaged communities. Education is completely free and in addition students are provided with free Mid-day Meal, Text Books and Uniform. The key challenges faced by the school is poor level of awareness among parents, most of the students are first generation learners and in addition the associated social stigma and bias towards the girl child poses lot of limitations.

It is a well-established fact that the institution (school) has approximately a time duration of 6 hours in the school which ostensibly is for the manifestation of imparting education and other activities also recognized as the soft power. The school also faces the challenge to ensure time realization and converting it into further grooming of the pupil under the domain of the parenthood, who because of their irrespective pasts are either under-educated or under equipped.

Herein lies the challenge for the institution, where the changing ability cognitive of the students, is of utmost concern fully aware of the parental background. We aimed at designing a course that would actively involve the participation of the parent in achieving the mission of producing students with qualitative education and capabilities of facing contemporary challenges which is the baseline mission of the foundation.

CASE PRESENTATION

Identification of the problem/challenging situation/issue to be resolved

Girls didn't know what to do during the menstruation cycle and serious myths were related to periods.

Analysis of the problem

Girls were too shy to talk to their mothers as the mothers spent very little time with them and often felt unnecessary to talk to their daughters on these issues. Monthly cycle of girls started in school and they were not wearing proper undergarments and in addition had limited knowledge about the appropriate hygienic practices to effectively manage this duration.

Objectives

- Raise knowledge, influence attitude and impart hygiene practices among girls reaching puberty
- Reduce the gap between mother and daughter so that these problems should not arise and girls should get relevant and clear information from their best friend instead of random people.

Planning done

Mothers were called in school and an initial meeting was held with mothers discussing the issues and making them aware about how important it is to be a best friend to their girl child. This initial meeting was also done taking mothers in confidence as the matter is little sensitive considering rural backgrounds and the related social atmosphere in villages.

Success Criteria and possible alternatives decided

It was decided that after initial guidance, the mothers themselves would come to school and talk to the girls. The mothers took initiative to visit school on working days and orient girl's students on their personal hygiene, cleanliness and motivated girl student to discuss their day to day problems with their mothers as daily practice.

Implementation

Mothers came and they discussed the importance of using undergarments keeping the hygiene of their wards into consideration and not following the lifelong myths which are usually a custom to follow in the rural areas. The parents and the girl students were educated on the proper use of undergarments, sanitary napkins, disposal of the used sanitary napkins and points were discussed to maintain their personal hygiene.

Challenges faced in implementation-

Mothers felt shy / embarrassed but they shed their inhibition, they informed about the various incidents happened near their villages which went unnoticed where the girls were misbehaved or molested by men.

CONCLUDING REMARKS

The sessions go very well after detailed, one to one and challenging discussions with the community people. The mothers and their daughters are accepting it.

Partnership with Community

PRIYA C PILLAI, SUCHITRA, RAJESH KUMAR & AMBIKA RAGHAVAN

INTRODUCTION

“Growing youth determined to reach their goal, sure of their dignity, consistent in their endeavors, proud of their cultural background - can alone bestow upon a growing country the status of a nation.”

Swami Chinmayananda

The art of giving without expectation, is a gift to everyone involved. Seva is the art of blessed action. It is virtually impossible to change the world at one stroke. Focus on the community around you, the village in which you live, the partnerships you've created, and the lives of those you're able to touch. There are options to contribute as an individual or as part of a team.

The Chinmaya Education Movement is one of Chinmaya Mission's most valuable contribution to society. The Chinmaya Vision Programme concretises Pujya Gurudev Swamii Chinmayananda's vision of education. The child is the focal point of this programme. It is not portion-based, but attitude based. The concept is followed by all Chinmaya Vidyalayas all over India and abroad.

Instilling in children the concept of “Vasudaiva Kudumbakam” - “One world One Family,” helps the child view himself/herself as a responsible citizen of world.

To ignite the young minds with the spirit of happy living along with the society around them, we conducted certain Seva activities at various levels, which in turn brought about a positive change in the child to himself and the world around him.

CASE PRESENTATION

Identification of the problem/ challenging situations/ issues to be resolved

Today actual living arrangements vary widely. Many Indians live in nuclear families but belong to strong networks of beneficial kinship ties. The happiness in life comes through the Yagna spirit, where we all join together in exercising our dynamic powers to give meaning to the purpose of our life.

This year we decided to celebrate our Aradhana day (Swami Chinmayananda's death anniversary) and other major days with an attitude of service.

Analysis of the problem

We found that for many poor elderly people like suffer abandonment. Cleanliness issues existed at railway platforms, waiting halls, station walls, foot over-bridges and the public statutory auditorium.

Objectives

- To be compassionate towards the fellow beings.
- To be proud as an Indian responsible citizen and understand our country within the global context.
- To conserve the environment
- To be courageous enough to face the world and to become successful person of future

Planning done

- Through assembly programmes, observing special days by depicting examples
- Listing out various activities that can be done to become aware of the nearest community.

Possible alternatives decided

Showing films through AV and arranging talks by eminent personalities.

Implementation

| | | | | |
|--|-----|-----|-----|-----|
| I heard the entire story in class/ from a friend and want to read it to myself | 15% | 7% | 10% | 11% |
| of no particular reason | 13% | 13% | 12% | 13% |
| I was forced to read it by my parents/ teachers | 6% | 1% | 6% | 5% |

| Where | Why | Who | What | When | How |
|--|---|--------------------------------|--|--------------------|--|
| Camp for Senior Citizen at Anganwadi, Kannankul angara, Tripunithura | To empathize with the plight of elderly people. | Class IX & primary students | Rice, soap etc. | October, 7th, 2018 | The things were handed over to the senior citizens in the camp |
| Tripunithura Railway Station | Awareness of Swacchtha in community work | Students of classes VIII to XI | Cleaning of Railway station | October 3rd | With the Co-operation of Railway Authorities |
| Tripunithura Municipality Auditorium | To develop civic sense | Students of classes VIII to XI | Cleaning of municipality auditorium | October 3rd | In co-operation with Kudumbasree |
| Master Arun Sanu's house at Eroor | Universal Brotherhood | Class XII | Collection of their Pocket Money | June | Contributed to Master. Arun Sanu, a chronic kidney patient hailing from a poor family. |
| Chinmaya School Campus | To develop the sharing and caring quality. | Students from L.K.G to 12 | Essential items like food, clothing etc. for the destitute | 2nd August 2018 | Donated for the needy, handed over their contribution to Shri. Theruvoram Murugan. |
| Tripunithura Poornathrayeesa temple | Spiritual development | Music club | Bhajan students along with music teacher | In December | Conducting Bhajan |

- **Challenges faced in implementation**
- Time management
- Approval from the concerned organizations

- Support of the stakeholders
- Resources involved (both Human and Material)
- Human Resource :- Students, teachers, parents, needy, social workers and other stakeholders

Material Resource:- All house hold articles, food materials, vehicles, medical facilities

The Seva Activities [Satmata] of the Academic Year 2018-2019.

| | | | | | |
|--|---|------------------------|--|--------------------|---|
| Municipality Office | To become the part of the local development | Management & Principal | As a part of road construction | Last academic year | Laid the tiles in approaching road |
| Tripunithura city | Eco-friendly activity | Std: VIII to X | Participation for community awareness | June 5th,2018 | Conducted cycle rally |
| St.Thomas relief centre- Perummanoor, Nirmala College-Mulanthu- ruthy, Manakunnam & SNDP school relief camp, Udayamperoor (Flood relief) | Protect and maintain critical facilities | Whole school | Food and Cloth Materials | 18th Aug,2018, | Voluntary contribution with school as the collection centre |
| Chinmaya Vidyapeet Flood Relief Centre | Protect and maintain critical facilities | Whole School | Food and Cloth Materials | 18th Aug,2018, | Voluntary contribution with school as the collection centre |
| Govt. Muppathadam school (Flood relief) | to provide a pro-active and personalized citizen-centric public service | Whole school | School materials like books bags, tiffin box, steel water bottles, pen etc. | On Sept 5th | Voluntary contribution with school as the collection centre |
| Jama-ath school Kalady (Flood relief) | to provide a pro-active and personalized citizen-centric public service | Whole school | School materials like books bags, tiffin box, steel water bottles, pencils, etc. | On Sept 5th | Voluntary contribution with school as the collection centre |

CONCLUDING REMARKS

The students became selfless contributors working with passion to serve the society.

A fist full of help with a heart full of love are tiny steps taken to fulfill the mission to become compassionate volunteers and create happiness all around.

Kindle, Nurture, Grow

SHILADITYA GHOSH, SHRIKANT MISHRA, SABA TANVEER & SHWETA DAS

INTRODUCTION

Our vision of the school clearly states - 'To create world citizens with humane values by facilitating learning in a progressive and inclusive ambience'.

It was the beginning of a path-breaking concept indeed. We had recognized that education was not about giving every child the same thing; rather it meant giving each child what he/ she needed to in order to lead a respectable life.

School is a place where we learn life lessons. We learn to be resilient, collaborative, humble, introspective and sensitive in our approach in order to reach the highest standards and goals that we set for each one of us. There have been challenges galore, but right from the very beginning, we have been honest in all our endeavors.

CASE PRESENTATION

Identification Of Problems

- Acceptance: for the parents first to understand their child and look into the abilities rather than shortcomings.
- Teachers and peers to forward hand in hand.
- Other parents must also to accept individual differences.
- Sensitization: of teachers through workshops

Analysis of the problem

We required special educators, resource teachers, resource room, resources, counseling of the students and parents, psychological testing, sensitization, awareness.

Objective: Holistic development of child

- To enhance functional learning.
- To enhance social, emotional, personal and academic skills.
- To create equal opportunities for full participation in school activities, competitions, celebration, exhibitions and Annual Function.

Planning Room, Appointment of special educators and resource teachers, Workshops for sensitization of teachers, teachers training, identification of students

Success criteria and possible alternative decided:

a) Curriculum

Accommodation - changes made to instruction and/or assessment without changing the curriculum.

Modification - Alterations made to instruction and/or assessment along with changes in curriculum.

Remediation - Remedial services for children with special needs / differently abled

Child Centered Curriculum /Functional Curriculum)

Use of JAWS software for children with visually Impairment

Mobility orientation for children with visually Impairment

Sensitization of care takers of children with special needs.

b) Co-curricular activities: participation in- morning assembly, annual function, sports, art and craft, music etc.

Activities: For the whole school there are well planned activities according to the class in the annual calendar plan as well as time table. Children with special needs are included in all the activities like any other child.

Celebration: All festivals are celebrated in our school. All the children become part of it and enjoy the fiesta.

Sports: Sports period is allotted in the class time table in which the children with special needs go with their class mates. A

separate sports period is also allotted in their timetable where in the sports teachers work with the special needs children according to the child's ability and train them for specific skills.

Music & Arts: They have separate classes to learn the skills in the fine arts and performing arts, as well as regular classes.

Implementation

Policy for promotion of inclusive education

- Optional day boarding: School have compulsory day boarding from grade IV to VIII, but in the case of children with special needs it is not compulsory as they can attend required therapies.
- Flexible school timing for children with special needs - If the child requires therapies like physiotherapy, speech therapy etc. he/she can report to school late and leave early, even the class time table schedule is made according to the child's presence in school.
- Classrooms on the ground floor: for children with physical exceptionalities his/her classrooms are on the ground floor.
- An attendant is provided: In case of physical exceptionalities and blindness the child is provided with an attendant who takes care of the safe mobility of the child.
- Admission Policy: Children with special needs are given admission not on the basis of the entrance test but on the basis of their functional assessment and availability of seats.
- Promotion Policy: Children with special needs are promoted to the next grade (upto grade 8) on the basis of their functional performances.
- Policy of Equal opportunity: For full participation of children with special needs, House masters are instructed to include the children with special needs in school assembly, House activities etc.
- Student's Council: Children with special needs are also included in the student's council and given responsibilities according to their

caliber.

Steps of Implementation

- Screening - to identify children who may need further evaluation in order to determine the existence of a delay in development or a particular disability
- Prognosis
- (Provisional Diagnosis)
- Consulting with interdisciplinary team (Parents, Subject teachers, counsellor)
- Referral - Depending on the severity, the child is further referred for diagnosis/Certification.
- Suitable Placement

PLC - Those who are not able to achieve the minimum level of learning in the class and needs functional curriculum/ IEP

Mainstream with remediation - Those who are able to achieve the minimum level of learning and needs remediation.

Mainstream - Those who requires only accommodation like extra time, etc. **NIOS** - Those who have not passed out grade IX in mainstream

- **Accommodation** - changes made to instruction and/or assessment without changing the curriculum.
- **Modification** - Alterations made to instruction and/or assessment along with changes in curriculum.
Child Centered Curriculum /Functional Curriculum

Challenges Faced in Implementation:

- Acceptance by the parents
- Acceptance by the child
- Acceptance by parents of other students
- Acceptance by peers
- Labeling of child
- Sensitization of all stakeholders.

- Orientation of parents and teachers
- Convincing the child or parents for counseling and psychological Test
- Bullying

Any Other Areas not mentioned above

- Evaluation/Assessment: Differentiated Instructions with Worksheets are used for CWSN.
- Infrastructure: Barrier free
- During Mental Health Awareness program guests with special needs are invited to motivate and have sessions with students.
- Involvement of children in the International Activity-British Council - International School Award
- Safety and Security: cameras, guards, support staff.
- RCI registered institute providing B.ED and D. Ed in special education approach us for class observation, preparation of Individualized Education Plan and implementation of their lesson plan.

CONCLUDING REMARKS

We realized when we stimulate children's curiosity and make them lifelong learners, we enable them to develop healthy relationships, communicate effectively, think creatively and critically, empathise with others, cope with problems, make informed choices, take decisions and manage their lives in a positive and constructive manner.

Inclusive Practices

DK PANDEY, AARTI SACHDEVA & SHIKHA MIGLANI SHARMA

Introduction

Inclusive Education is one of the most effective ways to promote an inclusive and a tolerant society. It is known that 73 million children of primary school were out of school in 2010, down from a high of over 110 million out-of-school children in the mid-1990s, according to new estimates by the UNESCO Institute for Statistics (UIS). About Eighty percent of Indian population lives in rural areas without provision for special schools. It means, there are an estimated 8 million children out of school in India (MHRD 2009 statistics), many of whom are marginalized by dimensions such as poverty, gender, disability, and caste. Today, what are the needs and challenges for achieving the goal of inclusive education? How will an inclusive environment meet the needs of children with disabilities? How quality education can be effectively and efficiently delivered for all children?

CASE PRESENTATION

Children with Special Needs (CWSN) require an inclusive school environment which should help in their holistic development.

Analysis Of The Problem

Children with Special Needs (CWSN) are not being given conducive environment. People usually assume that children with special needs are deemed to be indifferent to education and unable to perform as perfectly as others. This misconception led to exclusion of CWSN in education which left them out of focus not only in education but also in almost every area of life. Therefore, this sphere always demanded special, serious consideration along with making them realize that are 'disabled' and professional approach in every corner of the world. There are several issues which need to be taken into serious

consideration for the appropriate and effective realization of inclusive education.

Objectives

- General Objective - To deliver inclusive education in a coordinated and adequately resourced manner.
- Specific - To ensure increased participation and completion of schooling by children with special needs.

Planning Done

Appropriate changes need to be made in the following areas:

- **Infrastructure** - Making appropriate changes in the infrastructure like constructing ramps, support bars and resource room; availability of wheelchairs, audio visual aids; appointment of special educator(s) and counselor(s).
- **Awareness** - Spreading knowledge about identification of different disabilities to facilitate early intervention both at parent and school level.
- **Academic** - Provide an appropriate learning environment by designing curriculum and adopting and using assessment techniques appropriate to their needs.
- **Emotional and Social**- Creating an environment of recognition that nurtures emotional and social needs of CWSN. Also generating a feeling of empathy among all stakeholders.

Success Criteria

- Mainstreaming of children with special needs in the school
- Receipt of Positive feedback from the stakeholders
- Preparation for the entry of CWSN in Higher Education
- Achievements and Laurels of CWSN

Implementation

- **Framing of Policy** - A school policy for the inclusion of CWSN in the school was formulated in sync with the school's vision.

- **Changes in the Infrastructure** - Appropriate changes were made in the infrastructure to facilitate barrier free accessibility of CWSN in all areas of school. Supportive changes in the form of ramps and support bars were made. Supportive resource material in the form of wheelchairs, audio visual aids, appointment of special educator and counselor and establishment of resource center were provided to the students.
- Conduct of Capacity Building Programmes for teachers and parents empowering them to identify and management of the needs of the children with special needs.
- Development of support material and referral forms by the Special Educator and Counsellor

Academic Interventions

- Appropriate academic support in the class and remedial instructions are provided to the students with the help of special educators and counselors.
- Assessment methods are modified as per the need of the students.
- Exemptions and accommodations as notified by CBSE for the students with special needs
- Adequate opportunities are provided to the CWSN for participating in different school activities.

Emotional and Social Support

- Conducive environment is provided to the CWSN for nurturing their emotional and social needs. All the stakeholders are sensitized towards to the needs of the CWSN and are motivated to display empathetic attitude towards them.

CHALLENGES FACED IN IMPLEMENTATION

- Lack of awareness and acceptance of diverse needs of CWSN in all the stakeholders

- Physical movement barriers • Lack of awareness among teachers in dealing with profound disabilities
- Limitation in inclusion of CWSN in all school activities

RESOURCES INVOLVED

- Parent Level Support • Teacher Level Support
- Peer Level Support
- Fee Concessions
- Admission Policy for CWNS
- Special Educator
- School Counsellor
- Music and Dance Department
- Physical education department
- Support Staff to assistance
- Supportive material like Magnifying Glass, Wheelchair, Teaching Aids, question papers with enlarged font, modified question papers

Learning and teaching styles

We aim to give all our children the opportunity to succeed and reach the highest level of personal achievement. We analyse the attainment of different groups of pupils to ensure that all pupils are achieving as much as they can. We also make ongoing assessments of each child's progress. Teachers use this information while planning their lessons. It enables them to take into account the abilities of all their children.

Teachers ensure that all children:

- feel secure and know that their contributions are valued;
- appreciate and value the differences they see in others;
- take responsibility for their own actions;
- are taught in groupings that allow them all to experience success;

- use materials that reflect a range of social and cultural backgrounds without stereotyping;
- have a common curriculum experience that allows for a range of different learning styles;
- have challenging targets that enable them to succeed;
- participate fully regardless of disabilities or medical needs.

Children with Special needs

Some children in NCJPS have disabilities. We are committed to meeting the needs of these children as we aim to meet the needs of all groups of children within our school. All reasonable steps are taken to ensure that these children are not placed at a substantial disadvantage as compared to non-disabled children.

The school is committed to providing a healthy and safe environment, which allows disabled children (CWSN) full access to all areas of learning. All ground floor classroom entrances are wide enough for wheelchair access and the designated points of entry for the school also allow wheelchair access. For children with non-physical disabilities, we review school routines and the curriculum to ensure that children and adults are not placed at a disadvantage. The school uses special desks, chairs and other furniture / equipment as and when necessary for pupils with specific physical needs. Our Access Plan identifies how we intend to increase the extent to which disabled pupils can take advantage of all that the school has to offer.

Teachers modify their learning and teaching expectations as appropriate for children with disabilities. For example, they may be given additional time to complete certain activities or modify teaching materials. In their planning, teachers ensure that they give children with disabilities the opportunity to develop skills in practical aspects of the curriculum.

Teachers ensure that the work undertaken by differently abled children:

- takes account of their pace of learning and the equipment they use;
- takes account of the effort and concentration needed in oral work or when, for example, using vision aids;
- allows opportunities for them to take part in educational visits and other activities linked to their studies;
- partially visually impaired children to use visual resources and images
- use assessment techniques that reflect their individual needs and abilities;
- drop third language in middle school
- go for extra academic support to Special Educator

They receive all the accommodations as per CBSE guidelines. In exceptional circumstances, we may decide that modification or dilution of curriculum is the correct procedure to follow. This would only be undertaken following detailed consultation with parents, examination cell and Special Educator.

Summary

In NCJPS, we value each child as a unique individual. We will always continue to strive to meet the needs of all our children and seek to ensure that we meet all statutory requirements related to matters of inclusion.

CONCLUDING REMARKS

In India, the number of the disabled people is so large, their problems so complex, available Resources so scarce and social attitudes so damaging. The road to achieving inclusive education is a long and varied one, on which challenges and opportunities will arise. India is a multi-lingual, multi-cultural, multi-religious country, and its people are stratified along sharp socio-economic and caste lines. The aim of inclusion is to bring support to the students. The key purpose has become more challenging as schools

accommodate students with increasingly diverse backgrounds and abilities. Inclusion is a process. Inclusion is a never-ending search to find better ways of responding to student diversity. It is about learning how to live with difference, and, learning how to learn from difference. In this way, N.C Jindal Public School has respected and nurtured the differences of the students and has positively worked as an institution to provide for a conducive learning environment for SEN students, to enable them to function to their optimum potential.

Values Through Service

“Watching and listening are a great art. By watching and listening we learn infinitely more than we do from any books. Books are necessary, but watching and listening sharpen your senses.”

—Krishnamurti

Bal Sevak Initiative

RAJESHWARI & SWAMI ANUKOOLANANDA

INTRODUCTION

The Chinmaya Bal Sevak Certificate is awarded to the students who best serve society selflessly in various categories for more than 120 hours. This programme is made available for the students from grade 8 to 11. This has provided a positive way to channelize the energy of the young mind to focus on the values for life time.

IDENTIFICATION & ANALYSIS OF THE PROBLEM

Chinmaya International Residential School (CIRS), felt the need of mandatory service activities for the students. The school used to celebrate seva week where all the students of the school render service through different activities for that week. However, it was noticed that one week of service was giving the students a platform to serve however, it did not inculcate the feeling or attitude of service in them.

Analysing this problem, CIRS took up this structured service program of Bal Sevak Certificate Award provided by CCMT-EC and adopted the program for our students. The program was taken up by CIRS in the year 2011. We take pride to inform that we were able to continuously sustain the program till date.

OBJECTIVES

- To encourage the students to take active roles in improving the family, school, society and the environment.
- To create youngsters who are willing to sacrifice their time and resources towards those who are less fortunate and needy.
- To bring in an internal transformation, from I to We, wherein they shed their ego and selfishness and come together to work for a

greater good.

- To rekindle the pride of 'being an Indian' and bring in dynamic patriotism which will make them able leaders and responsible citizens of the nation and the world in the future.
- The main objective is to bring in life transforming education, making seva, the very culture of the school and lifestyle of the students.

Planning

The nature of seva program is characterised into eight different categories, where a student has to render service for a minimum of 120 hours. Following are the various seva categories the students follow to get the certificate:

a) Seva of the Challenged

The students visit and serve at an orphanage/old age home schools for physically challenged and the mentally challenged school or any other such institution. They must dedicate upto 20 hours of service.

b) Seva with a Seva Organisation

The students have to serve with an NGO for the under-privileged or marginalized, in the city or rural areas.

c) Seva in Society

The student must serve society by taking up activities like tree planting/blood donation/organising medical camp/cleaning drive/or any other social cause in city or rural areas.

d) Seva for a Universal Cause

The students must organise and take part in awareness drives/ participate in national and international issues like population, pollution, conservation, energy, protecting plant and animal life and so on.

e) Seva in Cash/Kind:

The students can donate for a noble cause in cash (from their own pocket money/earning) / kind, to a worthy cause.

f) Seva at Home

The students render personal service to servants, parents, grandparents, relations, friends. Since our school is residential. The students spend their time in the dorm. The service rendered by the students to their dorm and dorm parents are considered under this category.

g) Seva in School

Students can serve by volunteering in organizing and conducting school functions/activities like arranging library books, serving in the dining hall, organising cleanliness program, fund raising activities, helping members of the school council, helping fellow students in tutoring/mentoring etc.

h) Essays on Seva

The students are asked to submit essays in their own words of about 300 to 400 words each, on the activities listed above.

These activities are planned and executed from the month of July to the month of May in the academic year. Initially a meeting is arranged with the students briefing them about the program. Then, a meeting with the teacher in charge is also conducted explaining the procedures they have to follow.

Eligibility Criteria

- She/he must be a student of the school.
- The students should complete the seva within a maximum of 2 years. Standards 8 to 11 are the best classes to do the seva projects in school.
- Each student must complete the seva in 7 different categories.
- Total seva time must be a minimum of 120 hours.
- After every activity, the student has to write a student reflection report, get the signature form the authority and also two beneficiary with the photo evidence and submit a dossier with all the documentation.

IMPLEMENTATION

The whole program is designed to bring out the real attitude of seva in the child from the Home to the Universe.

Seva in Vidyalaya

Students get various opportunities to serve the school. The students of grade participated in the cultural program and a skit during Anand Utsav. They also helped in preparing charts and models for the class exhibition. Few students helped the teachers in conducting parent-teacher meeting by distributing the tokens. Also, few other children helped the teachers maintaining the orderliness during CIRS general election. During seva week, they also participated effectively contributing their services in gardening.

Seva at Home

At CIRS, the dorm is their home away from home. The students helped in arranging cupboards, shoe racks and keeping the place neat and clean. They also help in decorating the dorms on various occasions. Also, they supported their friends and juniors in studies.

Seva for the Universal Cause

We organize various awareness programs and make the students involved in spreading the awareness through skit or dance or any program. The students have participated in awareness rally on “Disaster Management”, “Traffic rules”, and “Run for India”.

The students visited the government schools and created traffic awareness by putting up a skit. They provided traffic manuals to the students and also demonstrated safety measures to the children. They also put up the reflection stickers on the vehicles enroute.

Seva in Society

Every year, the students visit an ancient temple, Vellingiri Andawar temple situated at the Western Ghats border of Coimbatore district. The students clean in and around the temple. They also create awareness on “Green India, Clean India.”. “Say no to plastic”.

Seva with an Organization

Students help in cleaning the Chinmaya gardens ashram. During Maha Gayatri Havan, and Maha Shivratri our children volunteered in crowd control and prasada distribution. In Chinmaya Organization for Rural Development (CORD), they spend quality time with the children by teaching bhajans and stories and playing with them. They also help the CORD people in segregating the unwanted papers and cloths.

Seva of the Challenged/Cash or Kind

The students visited two organizations: Eeranenjham and Anbalayam. In advance the students plan their program and execute it meticulously. The students collect cash, cloths and purchase grocery items to donate to the mentally and physically challenged. They spent time by singing for them and dancing and playing with them.

CHALLENGES FACED IN IMPLEMENTATION

The problems that we faced were as follows:

- Initially, we found it difficult to coordinate with students across various classes to come together and do the activity, hence we chose to make it mandatory for only class 8 students.
- Being a boarding school, the school had to organise all the trips to various NGOs and institutions to conduct seva activities under various categories. It involves time, teacher in charges, transportation, food etc to be organized by the school.
- Students who join us in class 11 are not get to be a part of this program, however, it has been optional for them to join class 8 for the service activities.

CONCLUSION

From 2011, till now, we have 369 students who have received Chinmaya Bal Sevak Certificate. As per the strength of class 8, numbers vary. Details are provided below-

| Why | Who | When | How |
|--|-------------------------------------|-------------|---|
| To implement the value | Teachers of vidyalaya | January | Contributed money to a poor boy who met accident and lost leg |
| To feel compassionate towards old people | 8th and 9th standard students. | December 24 | Distributed new dresses ,soap,paste, fruits to an old age home at Chitrapuzha . Children organized cultural programmes to entertain them |
| To feel compassionate towards old people | The students of 6th and 7th classes | Feb 15th | Distributed new dresses ,soap,paste, fruits to an old age home at Anjaneya madom, Vaikom. Children organized cultural programmes to entertain them. |

- Chinmaya Bal Sevak Awards has played an immense role in inculcating the attitude of seva in the child.
- The child develops sensitivity in speech, action and thoughts which creates a positive atmosphere.
- The child gets the vision of seeing the entire world as one family.
- All students of the school above class 8 is a Bal Sevak Certificate Awardee (below are the picture with students holding the certificate and the sample of the certificate received).

Empathy Through Action

**SUPRABHA MENON, SHALINI D. MORAY, NAMITA VERMA, MALTI THAKUR,
SUDHA RANJITH & HARMEET CONTRACTOR**

INTRODUCTION

Values are learnt as we learn habits in the process of growing up. Research suggests that teachers are particularly concerned about how parents and guardians will react if schools address issues relating to values in a way contrary to their own personal views (Woolley 2010). Thus it is important to have a sense of what we are seeking to achieve as educators and what the purpose of education is to establish a rationale for inclusive practice.

CASE PRESENTATION

The idea of what values should be fostered through education has been best expressed in the Constitution of India. The Indian Constitution has explicitly laid down fundamental duties of its citizens in Article 51A, emphasizing that every Indian citizen would: “promote harmony and spirit of common brotherhood, transcending religious, linguistic and regional or sectorial diversities; renounce practices derogatory to the dignity of women; value and preserve the rich heritage of our composite culture; protect and improve the natural environment; develop the scientific temper; abjure violence and strive towards excellence in all spheres of individual and collective activity so that the nation constantly rises to higher levels of endeavour and achievement” These are not areas that can be taught per se. Rather, they can be nurtured through exploration and engagement with ideas and issues. The area of protecting and improving the natural environment, is central to this paper.

Identification of Problem

Every year during the annual kite flying festival (Uttarayan) which is a part of the rich culture and heritage of the State of Gujarat, thousands of birds get injured and die by getting entangled in the deadly Chinese and glass coated 'manja' used during the festival.

Analysis of the Problem

The main problem lies in the fact that most kite flyers are children, they are unaware of the hazard the sharp manja poses to birds especially at sunrise and sunset when the birds are flying low and towards their nests. Even if they come across an injured bird they don't know what first aid should be administered and whom to contact for help. NGO's and civic authorities run a few awareness programs but are largely ignored.

Objectives

The objective of this program is to make learners aware of the threats they pose to the environment, and how to minimize this threat by behaving responsibly.

Using Hart's Ladder of Participation, we scaffold the children into an adult initiated decision which is shared with the children. They in turn go home and make it into a child initiated decision which is shared with adults.

Planning

At Navarchana Sama, we have been conducting a sensitization program for students of standards 1-3, teaching them to behave responsibly, by caring for the natural habitats, wildlife and endangered species. We teach them to use environment friendly products, such as, safer non glass coated manja. We foster respect for authority, and tell them to act by calling helpline numbers if they see any injured birds. The values of empathy, compassion and caring for the environment is woven into the totality of the educational programme run by the school. Value education does not form a mere appendage of all other subjects.

Success Criteria

We are able to gauge the success of this program by the fact that nearly 80% of the students write about the helpline numbers in their essays.

Implementation

“Throw your dreams into space like a kite, and you do not know what it will bring back- a new life, happiness, luck, smiles, bonding, new friends.” That is what the students of standards I-III experience by flying kites to bring in the spirit of Uttarayan.

“Katio Che, Kai-Po-Che” are the words ringing in the air as children enjoy the traditional sesame (til) ladoos and chikkis. Students from all castes, religions and economic background participate in the event. Senior boys help the children to fly the kites.

Stage-1 : As a part of our yearly academic planning we see to it that the students are taught about migration of birds (Std-1) (<https://youtu.be/mfbIPJMQr8Y>), Parts of a bird's body (<https://youtu.be/reMVNUiTdAQ>), and how birds fly (Std.3) (<https://youtu.be/L-e5RzF8tcg>) in the Month of December.

Stage-2 : Before the kite flying, the story of Siddharth and the values of empathy and compassion are shared. An Audio visual presentation (<https://www.youtube.com/watch?v=mTHFGxPyi4Qfeature=youtu.be>) is shown to create an awareness and sensitize the students about injuries that the kite's strings can cause to birds and the precautions to be taken whilst flying the kites. They are also briefed to avoid flying kites specially during the early morning and late evening when birds are going to and fro to their nests. Helpline Numbers are also provided. This is then followed by a discussion.

Stage-3 : The kite flying is organized in smaller groups, with the help of the older children so that safety is maintained.

Stage-4 : After the festival the students are asked to write essays on their kite flying experiences.

Hart (1992) proposed a 'Ladder of Participation' to help to scaffold the empowerment of children. While this structure provides a useful metaphor for participation, it should not be seen completely in linear terms, as this might limit the choices available to those wishing to involve children in decision making. It may be better to view the five positive elements as different facets of good practice. For example, the ladder infers that child-initiated and directed participation is the ultimate aim, but this may not be an appropriate approach in all circumstances; in some situations, adults may need to take charge to keep children safe or to protect them from excessive pressure.

Hart's Ladder of Participation

Degrees of participation (in descending order)

- Child-initiated, shared with adults
- Child-initiated, but directed by adults
- Adult-initiated shared decisions with children
- Children are consulted but informed
- Children are told what to do but informed

Degrees of non-participation

- Tokenism
- Decoration
- Manipulation

This ladder can be related to the decision making process about kite flying.

- In the first stage at school-the children are first taught about birds (Level-4)
- In the second stage at school-story, AV presentation followed by a discussion (Level 5 and 6)
- In the third stage at school-kite flying activity (Level 7)
- Kite flying at home on Uttarayan (Level 7-8)
- In the fourth stage at school-feedback in the form of essay (Level 8)

- At various times children ask, 'Why do I need to learn this?' Such a question is less likely if the learning is driven by the child's own inquisitiveness and curiosity.

Challenges Faced

The main challenge faced here is ensuring the safety of the children. We have solved the issue by making smaller and thus more easily manageable groups, older children also volunteer in helping to fly the kites, at any given time only about 10-15 kites are flying.

CONCLUSION

This paper has explored the values of love, empathy, caring, sharing and compassion for harmonious and humane relationships through the Kite flying festival of Uttarayan in Gujarat.

Being a humane person is an essential attribute of an educated person. Compassion is a natural instinct that moves from within and seeks out the kindness to people. We feel for those who suffer even if they are strangers. This enables us to transcend all barriers, prejudices, labels etc Empathy facilitates caring and sharing. Caring involves sensitivity. It is doing something for the comfort and well being of others ranging from a simple gesture of calling up a helpline number to taking an injured bird to the center.

Values education is a continuous process

The process of values education is not direct and simple. Values are not static, there is continuous change taking place in them and the change may or may not be visible until there is an opportunity or motivation.

Environment Ambassadors : Green Schools

“It is in the very heart of our activity that we search for our goal.”

—Rabindranath Tagore

Red Dot Campaign

PADMAJA CHAVALI & VINEETA SAVADIKAR

INTRODUCTION

Context/Background for the case study

Making students aware of the effects of clinical household waste on the environment and stressing the importance of “Swachata Divas” - an Initiative by Prime Minister Narendra Modi. Additionally, inculcating a feeling of respect for ‘Dignity of Labour’ among students. Also, to reduce the menace it creates in the surroundings, segregation and disposing of this and protecting the environment.

CASE PRESENTATION

Identification of the problem/challenging situation/issue to be resolved

In accordance with the current practice, household waste is normally segregated as ‘Dry’ and ‘Wet’ waste. The wet waste is used for composting, whereas the solid dry waste is segregated and then disposed suitably. In most of the urban areas, the job of segregation is carried out by the housekeeping staff that has been employed by the housing societies, or contractors.

Sanitary pads are a part of clinical waste and if not disposed in a proper manner, pose a threat to the public health and hygiene:

- It poses a threat to the health of the sanitary workers engaged in the job of segregating the waste,
- If not segregated from the other waste, the sanitary waste often attracts scavenger animals, resulting in the waste being scattered all over the disposal area, and often around the collection bins, thus posing a general health hazard,

- Possibility of infected material may also lead to a public health hazard

Hence it is essential to spread awareness regarding the proper disposal of such waste.

Analysis of the problem

During an informal survey, we found that most of the parents and students are not aware of the proper method of disposal resulting in the sanitary pads and similar waste being disposed un-hygienically along with the other garbage.

It was also observed that there was no means of identifying the sanitary waste from other 'Dry' Waste by the sanitary / housekeeping workers who are mostly uneducated, and most of the times untrained.

Hence it was felt that there is a need to spread awareness amongst the students and their parents regarding the proper method to identify and dispose this waste.

Objectives

- To spread awareness regarding the identification of sanitary waste amongst the students and indirectly amongst their parents.
- To enable easy identification of waste sanitary pads by waste pickers during the segregation of waste.

Planning done

Marking the wrappers with a 'RED DOT' can make identification of the waste and at the same time give dignity to these helpers.

Students were briefed about the 'RED DOT CAMPAIGN'. The importance and need for making 'RED DOT BAGS' was discussed with them. Teachers and students gathered together on 2nd October 2017 on the occasion of "Swachata Divas".

Success Criteria and possible alternatives decided

It was decided that the newspaper bags marked with a prominent 'RED DOT' would be made and distributed to the nearby Medical

Stores. The effort was appreciated by the shop owners and customers.

Implementation

The 'RED DOT BAGS' were neatly packed in bundles of 100 each and then distributed by the students to selected Medical stores.

Challenges faced in implementation

Students had to explain the purpose of the bags to the Chemists. They also requested the shop owners to give four bags with every pack of sanitary pads.

CONCLUDING

The 'RED DOT BAGS' are being used in the school too. They have been placed for use in the washrooms.

Be Waste-Wise

**AMRITA VOHRA, MONITA DASH, LUCY DCRUZ, SANDHYA RAO &
VIJAYALAKSHMI IYER**

INTRODUCTION

Background for the case study

It was decided that introduction of solutions to problems of lack of respect of school property, misuse of the same, generation of waste paper would be carried out, by incorporating activities to be conducted as part of the revised CBSE curriculum.

CASE PRESENTATION

Identification of the problem

- It was noticed that fans and lights were very often kept switched on by students when they went for sports, art/ music, library and other extracurricular activities as well as at the end of the day when students went home.
- Students also wasted a lot of paper in the course of the day in terms of NIE newspaper, unfinished worksheets, spoilt project charts etc.
- Segregation of waste was not systematically done. • School gardens not maintained properly

| Chinmaya Bal Sevak Certificate Awardees | | |
|---|--------------------|-------------|
| Year | Number of Students | Class |
| 2017-2018, Oct 2018 | 76 | 8 |
| 2016-2017, Oct 2017 | 75 | 8 |
| 2015-2016, Oct 2016 | 67 | 8 |
| 2014-2015, Oct 2015 | 75 | 8 |
| 2013-2014, Oct 2014 | 51 | 8 |
| 2011-2013, Oct 2013 | 25 | Mixed Group |

Analysis:

- Lax attitude of students towards taking responsibility in matters pertaining to waste reduction and management
- Lack of commitment towards waste management was another key area identified for action. Also current materials available in the market for educational use are largely non biodegradable and made of poor grade plastics. Senior students in charge of inspection of proper waste segregation showed low motivation towards performance of their duties due to scholastic pressures and lack of interest.
- There was a general apathy towards greening and maintenance of school gardens.
- Ignorance of the magnitude of expenditure carried by the school for providing even basic infrastructure like electricity.
- It was also noticed that even when the learners were aware of many environmental issues plaguing the world today, they had little or no knowledge of how they could contribute towards finding a solution to the problems facing us today. This could also be traced to the fact that there was a severe lack of time and mental space that is important in order to successfully cultivate an attitude of social consciousness.

It was thus deduced that the problem had a few key aspects. Firstly, the existing pedagogic structure is increasingly examination-and-

result oriented leaving very little scope for activity that is independent of short-term results. Students do not have the will - and indeed the time - to devote themselves to something that will not yield an overnight result which can in turn be used as fodder for further tests. We came across cases where some older students were dissuaded from participating in greening activities by their parents because it was felt that such activities were a waste of time.

Objectives

- To create respect for school property and provide an environment where students voluntarily helped to preserve and respect school property.
- To appreciate the resources being provided by the school in terms of infrastructure etc
- To make students equal partners and stake holders in utilizing resources effectively
- To create awareness of the importance of saving electricity as well as taking measures to this end

Planning done

An Eco Warriors group was created which was further subdivided based on tasks as follows:

- Students of class 11 were assigned the task of systematic greening of the garden and composting
- Students of class 9 called themselves energy warriors and conducted energy audits on a daily basis in school.
- Students of class 8 used waste paper and converted it into paper mache to create various teaching resources as well as objects of art.

Success Criteria and possible alternatives decided

It was decided that a significant change in energy consumption would be a measurable indicator of a positive change in attitude of the students. Increased area of the school grounds under green cover would also be a measurable index of the success of the green project.

Reduction of paper waste in the conventional teaching learning methods was not deemed possible and hence a switch to increased

implementation of ICT was made through the introduction of virtual classroom in the form of Google classroom, interactive teaching methodologies using google apps like docs, slides and sheets etc.

Implementation

- Students volunteered to be part of the eco warriors group
- Badges were given to the students to make them feel responsible for the tasks they were set to undertake
- Regular meetings of the eco warriors group were held
- The students conducted regular audits
- Every Friday organic waste in the form of fruit peels etc generated in school was collected and added to the compost pit. Such compost was then used as manure for the plants that the students had planted in the school garden
- A programme to create an urban forest with 800 plants was taken up and is currently being implemented in phases
- Students made various art works as well as teaching aids using paper mache which were exhibited during the school exhibition
- Regular feedback regarding the energy audit, greening and composting project as well as waste reduction and management process is given to the rest of the school in the form of presentations during the school assemblies. Classes with a consistent record of switching off lights and fans are praised thus inspiring others to do the same
- Google classrooms have been introduced to make the teaching learning process more interesting, interactive as well as paper saving
- Classes were awarded “swachh class award” for keeping their classes clean and reducing waste.
- Cleanliness drives and “Shramdans” were conducted every month.
- Dustbins were modified to be equipped with segregation facilities.

- Housekeeping team was educated on the proper methods of waste segregation

Challenges faced in implementation

It was noticed that time-constraint was a hurdle in the progression of the project. Unavoidable pedagogic commitments like curricular studies for the different subjects, homework and special coaching classes, tests and exams, etc., were leeching off the leisure time of the students. It was also found that initially students although very enthusiastic, lacked direction and could not understand how to plan for the project.

Resources involved (both human and material)

The resources involved in the case study, other than the teachers conducting the study, include students of the 8th, 9th and 11th grades of GISS Chinchwad. The inanimate resources included the school garden, saplings, compost, gardening equipment, IT lab etc. With the shift in attitude, we were also able to successfully observe 'Tarave namah' or Mission Green Schools as well as 'Swacchata Pakhawada' as suggested by CBSE. These activities were carried out with enthusiasm by our students.

CONCLUDING REMARKS

By carefully conducting this study and following the lines of plan developed by us at the outset, it became clear to us how the modern generations face challenges in developing a positive attitude towards conservation of school resources and their effective utilization. It was recognized that the problems and hurdles facing these students are uniquely contemporary in nature. It is essential to use the benefactions and endowments of the modern age to eliminate the hurdles or circumnavigate them effectively. As the students persist on their academic journeys, it can be confidently stated that they will keep exploring, exploiting and excavating the inexhaustible mines of practical knowledge and enrich their forays into the future continuously.

Life Skills

“In Sanskrit, the word exclusion is untranslatable.”

—Swami Vivekananda

The Bullying Menace : Creating Awareness

SHANTHI SAMUEL & ANGELIN CHRISTOPHER ROY

INTRODUCTION

“Life skills” are defined as psychosocial abilities for adaptive and positive behaviour that enable individuals to deal effectively with the demands and challenges of everyday life. They are loosely grouped into three broad categories of skills: cognitive skills for analyzing and using information, personal skills for developing personal agency and managing oneself, and inter-personal skills for communicating and interacting effectively with others.

LIFE SKILLS EDUCATION

Life skills education is a structured programme of needs- and outcomes-based participatory learning that aims to increase positive and adaptive behaviour by assisting individuals to develop and practise psycho-social skills that minimize risk factors and maximize protective factors. Life skills education programmes are theory- and evidence-based, learner-focused, delivered by competent facilitators, and appropriately evaluated to ensure continuous improvement of documented results.

Based on these broad classifications we can classify bullying as a psycho social problem that young adolescents indulge in for various reasons. Bullying is verbal and physical aggression toward others that are often weaker, smaller, less aggressive, and more easily intimidated. It is the opposite of empathy and cooperation and is lower on the developmental scale.

Researchers have found that small behaviours can often signal the beginning patterns of bullying called “gateway behaviours,” these can be difficult to detect. But, if they can be recognized early on, there’s a chance that bullying behaviour can be prevented from

developing in these youngsters down the road. As educators, here are some of the key behaviours we should take notice of:

- Eye rolling
- Prolonged staring
- Back turning
- Laughing cruelly/encouraging others to laugh
- Name calling
- Ignoring or excluding
- Causing physical harm
- Spying
- Stalking

While these behaviours may not be classified as bullying, putting interventions in place now could mitigate the likelihood of them growing into something more problematic.

Some of the ways in which bullying can be addressed is through the arts. Art can be a powerful tool for helping young people see situations from different perspectives. Using drama, literature, and visual arts as a vehicle for conversation, educators can help students understand the negative impact of bullying. Based on the above observations we took up a case study to see how we can address bullying in the classroom by involving the learners in a role play activity after a comprehensive session on the causes, effects and long-term outcome of bullying. (Excerpts from <https://lesley.edu/article/6-ways-educators-can-prevent-bullying-in-schools>)

CASE PRESENTATION

As in most schools, bullying in and outside the classroom is a prevalent problem. We happened to identify a few cases of bullying where learners resorted to name calling (nick names) and non-inclusion in casual activities. There were instances where learners made other learners do their school work or carry their educational supplies for them. Sometimes learners who were bullied didn't come up to the teachers to complain. The bullies thus had the upper hand.

Teachers inadvertently identified the bullies but with no one to implicate them, disciplinary action could not be taken.

Analysis of the problem

Going deeper in to the issue, we realized that the bullied learners were actually very scared of the bullies or were scared to be labeled as not being sportive enough to take the so called 'fun' that they were having in the class. So, most learners were not willing to come forward with the complaint. They were dubious whether bullying was wrong in itself. The facilitator thus had to convince learners that when they were not comfortable with a particular joke or prank or 'funny name' given to them and if it hurts their self-esteem, they should immediately inform an elder or try to stand up for themselves. So the activity used to sensitize learners on this issue was the role play.

Objectives

- To help learners be aware that bullying happens in many ways. • To sensitise learners about the ill effects of bullying and the detrimental effect on the one being bullied.
- To help learners think critically and creatively as to how bullying can be countered.
- To help learners understand that building self-esteem is crucial to have a healthy outlook on life.

Planning done

- This life skills session on bullying was planned for all the sections of class 7. In one session, a total of 35 learners are involved in the study at one time.
- It is planned for class 7 because incidents of bullying were more serious in the higher classes but hardly comes to the authorities and sensitising the younger learners prepares them to stand up to instances of bullying and also dissuade learners from resorting to bullying for any emotional reason.

- The facilitator initially talks to the whole class about the causes and outcome of bullying.
- The learners then view a video clip on the dire consequences of bullying.
- The facilitator then divides the class into groups for a role play activity.
- They are given a situation in a class where a group of learners bully individuals who are victims.
- They are given time to plan and improvise as much as possible to help the message reach their peers.
- To avoid disruption of other classes, learners are taken to the audio visual room for the video clip and activity.

Success criteria and possible alternatives decided

- The whole exercise will be successful if:
 - At the end of the session and role play activity, the objectives mentioned above are met
 - Learners realize that hurting someone intentionally, physically or emotionally is bullying.
 - Learners share this message about bullying with friends and family.
 - As an extension of this activity, the message on anti-bullying can be spread in the whole school through an assembly on the same topic.

Implementation

- The learners of one section of class 7 were gathered in the audio visual room for the Life skills session. This is the practice in this institution when there is an audio visual component in the lesson. Once the learners of this class were seated in groups, the facilitator introduces the topic of bullying with examples and real life instances. The theory behind bullying and the harmful effects of

it were clearly explained to the learners in an interactive-discussion methodology.

- The video clip on bullying in a school environment is shown to the learners. The learners discuss the take-away points from the clipping.
- The learners were then given the topic for the role play. Since the all the information regarding bullying was internalized by the learners, they were eager to plan and act out their roles in the role play. They showed a lot of creativity in the dialogues and also the delivery of the message.
- One of the groups went on to include a pledge against bullying. Once all the groups completed their role plays, a brief summary of the learning was brought out from each of the groups. The important life skills involved such as decision making, critical thinking, empathy and problem solving were also highlighted.
- Feedback regarding the usefulness and effectiveness of the activity was received.

Challenges faced in implementation

One of the main challenges faced was that by the learners took a long time to prepare for the role play and then some of the groups digressed from the main essence of the role play which is to bring out the pain and difficulty experienced during bullying as well how the victim can stand up for himself. There was more emphasis on the dramatization aspect. This had to be constantly pointed out. However a couple of groups did bring out the right message.

CONCLUDING REMARKS

In an age where skills of all types are highly sought after, life skills sometimes takes the back seat. But thanks to organisations like the UN and school boards like CBSE, the importance of Life skills has been highlighted. Institutions like ours have invested a lot in developing the life skills of learners in infrastructure as well as manpower. However the success of the program lies in how well it is

received by the learners. The incorporation of Life skills through topics that are relevant to the learners is the key. Also it Life skills sessions are golden opportunities to address pressing issues such as bullying or stress management that is a need for today's young generation.

This particular study is successful mainly because learners felt the need and it was addressed in a way that was both engaging and fun but at the same time brought out the desired instructional outcome.

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Springdales School, Pusa Road, New Delhi

ANUPMA BHARDWAJ & D K JAIN

Jain Bharati Mrigavati Vidyalaya, New Delhi

RAMMA RAINA & RAMANDEEP KAUR

Satya Bharti Adarsh Sr. Sec. School, Fattubillha, Amitsar, Punjab

PRIYA C PILLAI, SUCHITRA, RAJESH KUMAR & AMBIKA RAGHAVAN

Chinmaya Vidyalaya, Kannankulangara, Tripunithura, Tamil Nadu

SHILADITYA GHOSH, SHRIKANT MISHRA, SABA TANVEER & SHWETA DAS

N.H. Goel World School, Raipur, Chhattisgarh

DK PANDEY, AARTI SACHDEVA & SHIKHA MIGLANI SHARMA

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SUDHA RANJITH & HARMEET CONTRACTOR

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PADMAJA CHAVALI & VINEETA SAVADIKAR

City International School, Kothrud, Pune

AMRITA VOHRA, MONITA DASH, LUCY DCRUZ, SANDHYA RAO &
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About the book

Today the landscape of learning is shifting from the notion of a singular path towards a much more elastic understanding of how each child can grow and add value to the world.

We are moving towards personalized learning, something which is emergent, inextricable and alive which caters to individual needs.

The future is here and needs a set of competencies, literacies and attitudes that will guide children through life.

The contributors to this book try to look at innovative strategies and practices where the classroom can become a canvas for research, projects, adaptive learning and reflective practices.

Many of them speak from experiential learning while others from a personalized lens.

This book weaves together a fabric of a myriad hues in learning. It will be an important resource for all those who want to take on the challenges of family, school, practitioners, community and policy makers into one collation on behalf of our children.

About the organisations

The Central Board of Secondary Education (C.B.S.E.) is a National Board under the aegis of Ministry of Human Resource Development, Govt. of India which affiliates schools and conducts the Secondary and Senior Secondary examination at All India Level. The Board also handholds the schools to raise the standard of education through a network of dedicated CBSE Regional Offices and Centers of Excellence. The Board has taken up several initiatives to impact positively on the quality of education being imparted in the schools affiliated to it like introduction of Experiential Learning as mandatory pedagogy to promote critical thinking, creativity and effective study skills among students; adoption of learning outcomes developed by NCERT for classes I-VIII; integration of Art with the teaching and learning process of all academic subjects; mandatory sports; preparation of innovative annual pedagogical plans for the transaction of curriculum for all grades and all subjects; introduction of Artificial Intelligence, Early Childhood Care Education and Yoga as new subjects; introduction of two levels of Mathematics examinations for secondary level Board exams; mandatory collaborative partnership between schools to create an ecosystem for the schools to effectively take up all round self-improvement through Hubs of Learning. These initiatives of the Board are an effort to facilitate overall mutual growth and enhancement in the education standards amongst all schools affiliated with the Board.

The National Progressive Schools Conference (N.P.S.C.) is a forty-six year old association of senior secondary schools across the country and has 200 leading private schools under its umbrella. The N.P.S.C. started in 1973. Known for its work in teaching-learning practices, scholastic and co-scholastic initiatives and reforms in education, the member Principals of the N.P.S.C. work in collaboration with government organisations particularly the Central Board of Secondary Education, the National Council of Educational Research and Training, the National University of Educational Planning and Administration and other organizations both a National and International levels. Many member Principals have been on the Governing Board of the C.B.S.E. and on various other committees. They have also been involved in the creation of manuals, question banks, development of syllabus and innumerable other initiatives of the C.B.S.E. The presence of the N.P.S.C. is felt in the country and across the world. The NPSC affirms its motto of '*Quality, Commitment and Excellence*' in education.

TRUTH, NON VIOLENCE
NYAY, SAHODAYA, SHAANTA, NAI TALEEM, AHIMSA, SEWA, NYAY, NAI TALEEM, SAHODAYA, SHAANTA, NAI TALEEM, PEACE
SADHABHAVANA, SAHODAYA, NYAY, NAI TALEEM, SATYA, AHIMSA, SEWA, NYAY, NAI TALEEM, SAHODAYA, SHAANTA, NAI TALEEM, PEACE NAI TALEEM



