

EXPLORATION OF WAYS SCHOOLS AND TEACHERS CAN NURTURE THE NON-COGNITIVE ASPECTS IN CHILDREN

Sharanya Sudhakar, Parul Dewan & Vijayalakshmi Iyer

Azim Premji University (India)

sharanya.sudhakar@azimpremjifoundation.org, parul.dewan@azimpremjifoundation.org,
vijayalakshmi.iyer@azimpremjifoundation.org

This note shares our understanding about the ‘non-cognitive’ domain (as it is traditionally called) within the ambit of school education. It discusses what this domain entails and how it can be nurtured in children. It explores the means through which schools and teachers adapt processes and practices to nurture these essential capacities and dispositions in students. Finally, it proposes the Personal and Social Well-Being Framework, which provides a way for schools and teachers to ensure comprehensive development of children.

BACKGROUND AND RATIONALE

Education while ensuring the all-round development of an individual to lead a meaningful life is also expected to be geared towards ensuring a citizenry with a broader perspective of the world in relation to their individual roles. Holistic development of an individual is a result of interplay of various influences from home, neighbourhood, peers, and society, from childhood. Though all these influences have a considerable part to play in an individual’s growth, schools, with their structured approach, are expected to act as a mediator of all these and other influences in a child’s life, ideally trying to minimize the impact of negative influences and provide or enhance positive ones.

The role of school, thus, involves providing comprehensive learning experiences for every learner in an equitable manner to ensure their holistic development to lead a meaningful life eventually. Learning in schools then must encompass linguistic, cognitive, moral, emotional, social and physical development. The curriculum forms the basis for schools to venture into taking responsibility of the holistic development of all learners. However, the emphasis of school curriculum that is generally transacted seems to be restricted to mere acquisition of information (vis-à-vis knowledge), and regurgitation of rote memorized facts at the time of examinations, which has become synonymous to education. Subjects like mathematics, science, social sciences and languages are considered core curricular subjects while music, arts and physical education are considered as co-curricular or extra-curricular. This skewed focus on mathematics, science and social sciences are also focused on teaching to the test or exam, most of which predominantly focus on the recollection of factual information rather than on conceptual understanding and higher order thinking based on the concepts in these subjects. The learning of subjects becomes limited to disassociated pieces of information that are mostly not seen relevant to one’s context or life. Such a process of engaging with the subjects at a superficial level also results in the capacities and dispositions like creativity, empathy, critical thinking and social responsibility being overlooked. Thus, resulting in the much essential comprehensiveness in education being significantly and systemically overlooked in practice.

This work explores the premise of what constitutes comprehensiveness in school education. This includes unpacking of the so called ‘non-cognitive’ domain as understood thus far in

various studies and attempts. The focus on understanding this domain is to help gain insights and use them to suggest teaching-learning practices – which are integrated to the various aspects of development and learning through the subjects taught, classroom experiences and school processes. This attempt led to the creation of a framework for teachers and schools that would help them to understand, articulate and plan for comprehensive teaching-learning experiences for overall development of an individual.

METHODOLOGY

The exploration began with examining the prevalent beliefs and understanding about childhood, schooling and education in the country. The key ideas about child development and education from the works of Aurobindo, Gandhi, Tagore, J. Krishnamurti, Blooms, Vygotsky, Piaget, Dewey and others were studied. National Policy documents that are based on the Constitution of India, i.e., The National Policy on Education, 1986 (NPE, 1986), National Curriculum Framework suggested by National Council of Educational Research and Training (NCF, 2005) and Right to Education Act (RTE, 2009) aided in further exploration. Alongside these, examining the different studies and programmes world over and in India such as Self-Regulated Learning, Social Emotional Learning Framework, CASEL, WHO Life-Skills and CBSE – CCE helped in understanding the various perspectives and approaches towards inclusion of the ‘non-cognitive’ domain in schooling thus far and reinforced the importance of nurturing all-round development of children.

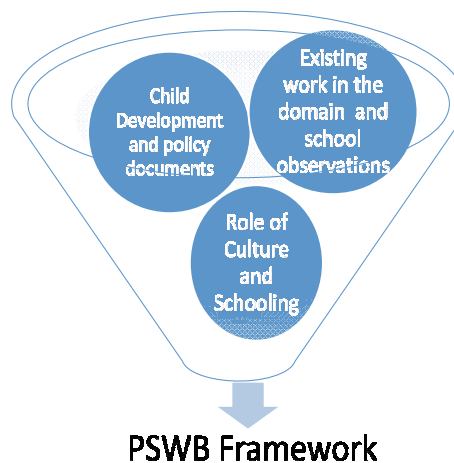


Figure 1: Representation of the methodology

To complement this conceptual understanding with evidences from practice, a process of observing a few alternative (not mainstream) schools was initiated. Student and parent interviews, field notes, conversations with teachers and head teachers and observations in these schools were guided by a set of questions (Box 1). These were analyzed to provide insights into the individual school’s educational philosophy, curriculum, classroom practices, student-teacher relationships, teacher planning and involvement, assessments, reporting, community involvement etc. and was documented as a report of learnings. These observations were done at Abhaya – a Waldorf-Steiner School, Sri Aurobindo International Center for Education and Center for Learning and Patha Bhavana and Mrinalini Ananda Pathsala in Shantiniketan for a period of six to eight days, for an average of fifty hours in each of these schools.

1. What is the philosophy or concept of education of the school?
 - i. *What kind of processes and policies are practiced by the school that reflects the ideology of the school? Does it reflect in the school climate? If yes, how?*
 - ii. *How is discipline understood by the school? Is it assessed and reported?*
2. What does the school mean by comprehensive education/ all-round development of students?
 - i. *Does the school differentiate between subjects as scholastics/co-scholastics or curricular/co-curricular? Why/ why not? What is the nature of some of the literary, cultural, art, drama, crafts, sports / games related activities initiated by the school?*
 - ii. *What are the perspectives of teachers on these activities?*
 - iii. *What is the methodology of teaching/learning in these subjects?*
 - iv. *How are students' performances and products in these areas assessed in the school?*
3. How sensitive is the teacher/ adult to the different needs of the children?
 - i. *Are the teachers in tune with the child's needs as per the child's current developmental stage?*
 - ii. *Are activities related to co-scholastic areas promoting inclusion and allowing for enjoyment? Or is the environment competitive and favouring exclusion?*
 - iii. *Are those / how are those needs addressed through a sensitive and nurturing environment? Is there any method of documentation?*
4. Do teachers have independence to decide on issues related to their classrooms, students, any of the school wide issues? Are decisions made collectively with them or for them?
 - i. *Do teachers have independence / autonomy? If yes, in which areas? Were you able to observe these?*
 - ii. *What is the observed role of the school leader / HT in the kind of environment (whether nurturing) the school shows?*

Box 1: Questions explored

The personal and social well-being emerged as a conceptual framework with the five domains, indicators and descriptors, teacher practices and school processes. To validate this framework, an ongoing process of school observations was initiated in the Azim Premji School in Tonk. This involved one-on-one interactions, interviews, and school and classroom observations for four to five days every month over a period of six months. These school observations were used to analyse and validate each strand of the PSWB framework. This brought the academic exercise of developing a framework to a practical test-bed that modified and strengthened the proposed framework.

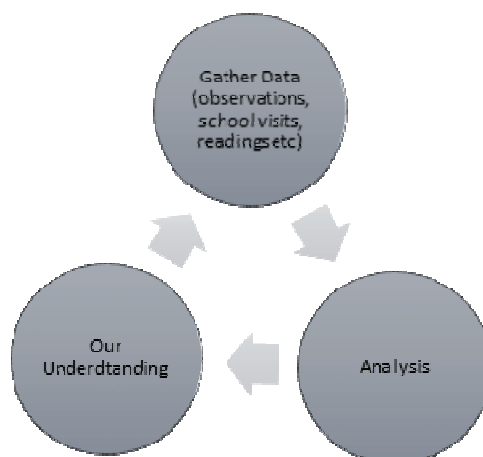


Figure 2: Data-understanding-analysis

REVIEW OF LITERATURE

Childhood is understood and handled in multiple ways across the country, given the variance in family structure, socio-cultural, economic and political settings, birth order, gender, linguistic dominance etc. For instance, childhood of one kind could involve playtime, toys, safe and stimulating and caring environment, while another has children being ‘little adults’, working and till recently earning money to help run their households.

Analysis of social position of children in India shows that children are perceived as dependents. These manifest in various marginalizing practices within adult-child relationship. These included children’s experiences being shaped by adults, control over their activities, exclusion from decision-making, force for ‘scholastic work’, rigid expectations of obedience and weak ability to negotiate (Bisht, 2008).

And as per the National Curriculum Framework (NCF, 2005), childhood is described as

“a period of growth and change, involving developing one’s physical and mental capacities to the fullest. It involves being socialized into adult society, into acquiring and creating knowledge of the world and oneself in relation to others in order to understand, to act, and to transform.”

It further highlights that

“We need a curriculum whose creativity, innovativeness and development of the whole being, the hallmark of a good education makes uniform tests that assess memorised facts and textbook -based learning obsolete.”

This need for comprehensiveness in education and expectations from schools to provide opportunities to children to ensure their all-round development is also seen in other policy documents such as National Policy on Education (NPE) 1986,

“Education is for all. This is fundamental to all-round development, material and spiritual.”

Many Indian thinkers, philosophers, and educationists have expressed similar aims for education in their works. Distilling the key ideas of Aurobindo, Gandhi, Tagore, J. Krishnamurti, Blooms, Kohlberg, Vygotsky, Piaget, Dewey and many others indicate the recurrence of focusing on an all-round development, as in, the need to focus on developing an individual’s mind, body and soul. The key ideas in these works emphasize on integrated

development of an individual's personality, attitude and disposition along with the traditional academic outcomes of schooling. These do not separate the development of conceptual understandings in various subject matter areas and the behavioural, emotional and social aspects of development in children. The all-round development of children is seen as a product of the comprehensive and inclusive approach to learning experiences of the children without any distinctions made in terms of academic or ancillary skills.

Attempts to study and quantify the 'non-cognitive' domain have been primarily aimed to ensure overall life satisfaction as reported by adult or geriatric population. While doing the secondary research it was found that different studies have emphasized on different skills as important (Self-Regulated Learning, SEL Framework, ETS NCS Framework, and WHO Life-Skills).

The 'Life skills Education' has become the new thrust area for World Health Organization. According to the WHO, Life Skills are "the abilities for adaptive and positive behaviour that enable individuals to deal effectively with the demands and challenges of everyday life". This programme was initiated with the intent to reduce high risk behaviours and promote responsible decision making skills for good citizenship in different countries.

Recently, Central Board for Secondary Education (CBSE) India, 2009 has adopted 'Life Skills Education as an integral component of their Continuous and Comprehensive Evaluation. As mentioned in the CBSE policy document, Life Skills have two components, thinking skills, which require an individual to think rationally and act responsibly; the other is the social skills. Social skills enable an individual to build healthy relationship with other, resist peer and family pressure for undesirable activities, and avoid high risk behaviours that are personally and socially harmful.

Department of Education (MHRD, GoI) has some guidelines on assessment of non-cognitive domain in the primary section. It lists few non-cognitive skills and has attempted to break them according to developmental phases. It helps list minimum learning levels and assess according to mentioned criteria. This list of non-cognitive skills draws heavily from the democratic values enlisted in our constitution. What is appreciable is that they have deconstructed the values into attainable for children according to age, and hence made easy for teachers to measure those at the end of designated stages.

The Collaborative for Academic Social, Emotional Learning, United States of America (CASEL, 2003) is a programme to "address gaps in high and low achievers by giving skills necessary for success in school and life". CASEL programme aims to enhance the social emotional skills in children through classroom instruction. The socio-emotional attributes covered by CASEL are self-awareness, social-awareness, self-management, relationship skills, and responsible decision making.

Social and emotional learning (SEL) is the process of developing the ability to recognize and manage emotions, develop caring and concern for others, make responsible decisions, establish positive relationships, and handle challenging situations effectively. SEL provides schools with a framework for preventing problems and promoting students' well-being and success. Findings suggest that SEL programmes increases students' performance on standardized tests and grades.

According to the literature review done on 'Self-Regulated Learning' by the Center for Research on the Wider Benefits of Learning, Self-Regulation refers to "thoughts, feeling, and actions that are planned and adapted to the attainment of personal goals". Self-regulation has

been proposed to include both the cognitive and the affective skills and is seen as a process in which learners engage, as opposed to being fixed traits that one has or has not. Claxton (2007) suggests self-regulation is an educational process that can be used to help individuals build their own sense of psychological wellbeing.

Social Emotional Aspects of Learning (SEAL) is “a comprehensive, whole-school approach to promoting the social and emotional skills that underpin effective learning, positive behaviour, regular attendance, staff effectiveness and the emotional health and well-being of all who learn and work in schools”. (See Humphrey, Lendrum & Wigelsworth, 2010). The SEAL programme was rooted in the five aspects of emotional intelligence model by Daniel Goleman (1995). These are self-awareness, self-regulation (managing feelings), motivation, empathy, and social skills.

A model which takes the growth perspective of development of skills as opposed to fixed traits perspective is Habits of Mind “Habits of Mind has emerged as a framework of attributes that, proponents claim, comprise the myriad of intelligent thinking behaviours characteristic of peak performers, and are the indicators for academic, vocational and relational success” (Costa & Kallick, 2000). Habits of Mind framework appears a desirable framework for continuous personal growth. It recognizes the need of meaningful learning for success in academic and personal fronts in the 21st century. Keeping this in mind, they suggest a set of skills/strategies that will enhance an individual’s effectiveness. The ‘Habits’ as suggested by this framework is a combination of skills of effective people and rests on philosophy of ability to engage in lifelong learning, which is an essential component to deal effectively with increasingly complex and unpredictable future

UNICEF also has a psychosocial well-being programme for children. It aims to enhance the psychosocial wellbeing of children in countries that are facing conflict or emergency situations. It aims to promote sense of safety and security, normalize daily life, encourage participation and enhance resilience (UNICEF- Child Protection from Violence, Exploitation and Abuse). The UNICEF programme shows interest in the socio-emotional aspect of children only with a view to measure them as fixed traits acquired by children due to the external factors and not from the growth perspective.

CONCLUSION

The school curriculum which is expected to outline the means to achieve the broad aims of education is largely dedicated to what children need to learn and master subject-wise, i.e., in mathematics, sciences, social sciences and language arts. The larger educational aims are expected to be implicitly achieved as part of learning the subject- specific skills, content and understanding. That is to say that built into the process of learning (say for e.g. reading, writing and arithmetic skills, solving mathematical equations, constructing experiments to check on one’s hypothesis and realizing the relation between origin of agriculture and the fading away of the nomadic life of humans) are the opportunities for children to also develop the capacities to empathize, learn how to learn, make independent choices and appreciate beauty. These latter capacities need to become an integral part of the schools’ and teachers’ planning of the teaching –learning process. Objectives for a task, activity, concept in a subject or a program is then synthesized by combining the content objectives seamlessly to these overarching aims, which ensure the inclusion of the ‘non-cognitive domain’.

The PSWB emerged from the attempt to address these needs by translating our understanding of the ‘non-cognitive’ domain into a comprehensive structure that can be used by the teachers

and school. It intends to help schools to nurture the necessary dispositions and capacities in children in a comprehensive manner at various stages during the schooling years. The structure of the framework is based on the aims of education as mentioned in the country’s constitution and various educational policy documents. It has five personal and social domains. Table 1 lists the five domains in the PSWB framework.

Personal Social Well-Being Framework				
Sensitivity to Others	Participation in Democratic Processes	Learning to Learn	Independence of Thought and Action	Aesthetic Appreciation

Table 1: Personal social well-being framework

To understand and appreciate the framework in its true spirit, it is imperative that the concept of personal & social well-being is considered as not an absolutely attainable attribute, and rather, a more dynamic process as reported by the individual, in a particular context, in different stages of life. To define the construct of the framework,

“Personal & Social Wellbeing is a capacity, of the individual, to experience and respond in constructive ways for oneself and for the milieu using the cognitive, affective, aesthetic, psycho-motor abilities”.

The critical words in the above definition have been operationalized for clarity. Capacity is referred to as skills and competencies of an individual; these are the abilities that an individual uses to respond to a situation. *Constructive ways* refers to positive and conducive responses to both favourable and unfavourable circumstances. These responses have an overall positive impact on the individual. *Milieu* is the socio-cultural-economic context of the individual- this is expanded to include people, practices, and the environment.

The exploration helped evolve a conceptual note and a set of broad indicators under each of the five domains for elementary grade students. These broad indicators were then further detailed out to include a set of descriptors. To enable teachers plan for comprehensive learning experiences that would ensure personal and social wellbeing in children a list of essential teacher practices were also created. A sample of the student behaviours and teacher practices from the framework is included in Table 2.

Indicators and Descriptors for the ‘Learning to Learn’ Domain
<p>1. Demonstrates intentions of engaging with the learning process</p> <ul style="list-style-type: none"> • <i>LTL 1.1 Is keen to explore and learn</i> • <i>LTL 1.2 Persists through the learning process with due consideration to relevance, priority, time and resources</i> • <i>LTL 1.3 Takes initiatives to participate in activities to learn</i> <p>2. Applies strategies, skills and competencies essential to sustain the learning process whether working individually or in a group</p> <ul style="list-style-type: none"> • <i>LTL 2.1 Plans and organizes learning and modifies plans and strategies to facilitate learning</i> • <i>LTL 2.2 Able to learn individually or in a team</i>

<ul style="list-style-type: none"> • <i>LTL 2.3 Takes responsibility for continuous learning</i> <p>3. Thinks and reflects upon one’s thoughts and approaches to learning</p> <ul style="list-style-type: none"> • <i>LTL 3.1 Reflects and analyses current knowledge and information to assess, inform and plan future actions and learning</i> • <i>LTL 3.2 Is aware of one’s learning strengths and needs and adapts oneself to support one’s learning</i> 	
Teacher Practices	
Opportunity for students	Modelling
<ul style="list-style-type: none"> • Provide an active learning experience, provides feedback, accommodates different learning styles, makes students’ thinking visible, and provides scaffolding and tailored instruction to meet specific student needs • Encourages students to take control of their own learning by allowing them to make some decisions about what to learn and how • Focus on understanding rather than memorization and routine procedures and they engage students in activities that help students reflect on their own learning and understanding • Engage students in different kinds of activities to help them identify their abilities to sustain interest, persevere and take responsibility 	<ul style="list-style-type: none"> • Understand subject matter and its structure, as well as the effective teaching practices to help students learn • Look for opportunities and share their discoveries with others so as to further one’s understanding on subject matter / teaching learning methods • Continuously explores teaching in many ways • Takes ownership and ensures accountability for tasks they engage in • Regularly reflects on one’s own knowledge, practices and interactions to learn continuously • Seeks participation of students in the learning process and is open to their feedback

Table 2: Indicators and descriptors for the ‘Learning to Learn’ domain/ Teacher practices

Structure and Expected Outcomes

The PSWB Framework can be used to collect information about students’ strengths and weaknesses by mapping observable behaviours of learners to the descriptors. Teachers can then plan for the students’ subsequent learning experiences that can further develop their capacities. The framework lends itself to doing this in a comprehensive manner thus initiating the move-away from the programmatic ways of approaching the acquisition of these capacities.

This framework could be used to plan and design interactions, discussions and engagements with teachers in this domain. It can guide teachers to explore, become aware, understand the various facets of holistic child development – including what enables it, the approaches that strengthen desirable capacities and dispositions and the ways to work on areas of improvement – and the interplay of it with the teaching-learning process.

The hope is also that as the need for focus on PSWB as an integral part of the school transactions is realized it would also impact policies to make school a centre for holistic

development of children and thus bring about a systemic change in the way education is approached.

References

- Aurobindo, S. (1990). (Reprint). *On education*. Pondicherry: Aurobindo Ashram.
- Bhattacharjee, A., & Sarma, N. (2009). Status of co-scholastic activities in the school programme of the elementary schools. Assam, India, Retrieved January, 6, 2011.
- Bisht, R. (2008). Who is a child?: The adults' perspective within adult-child relationship in India. *Interpersona* 2(2), 151-172.
- Bloom, B. S., Engelhart, M. D., Furst, E. J., Hill, W. H., & Krathwohl, D. R. (1956). *Taxonomy of educational objectives: The classification of educational goals. Handbook I: Cognitive domain*. New York: David McKay Company.
- Central Board of Secondary Education (CBSE). *Life Skills Education and CCE*. India: CBSE.
- Claxton, G. (2007). Cultivating the means to be happy: What does it take? In Institute for the Future of the Mind, Transcript of the keynote seminar of the All-party Parliamentary Group on Scientific Research in Learning and Education: 'Well-being in the classroom', Portcullis House, London, 23 October 2007. Retrieved from www.futuremind.ox.ac.uk/downloads/transcript_well_being_08_v6.pdf
- Collaborative for Academic, Social and Emotional Learning (CASEL). (2003). *Safe and sound: An educational leader's guide to evidence-based social and emotional learning programs*. Chicago, IL: Author.
- Costa, A., & Kallick, B. (2000). *Habits of mind: A developmental series (Book I: Discovering and exploring Habits of Mind)*. Alexandria, VA: ASCD.
- Dewey, J. (1938). *Experience and education*. Toronto: Collier-MacMillan Canada Ltd.
- Goleman, D. (1995). *Emotional intelligence*. NY: Bantam Books.
- Government of India. (1986). National Policy on Education. *Minimum levels of learning*. New Delhi: Ministry of Human Resources Development.
- Humphrey, N., Lendrum, A., & Wigelsworth, M. (2010). *Social and emotional aspects of learning (SEAL) programme in secondary schools: National evaluation*. UK: Department of Education.
- Kohlberg, L. (1988). *Moral development in education* (Masters' theses). New York: State University of New York.
- Krishnamurti, J. (1956). *Education and the significance of life*. London: Gollancz.
- Krishnamurti, J. (1974). *Krishnamurti on education*. New Delhi: Orent Longman.
- Krathwohl, D. R., Bloom, B. S., Masia, B. B. (1964). *Taxonomy of educational objectives: The classification of educational goals. Handbook II: The affective domain*. New York: David McKay Company.
- National Council of Educational Research and Training (NCERT). (2005). *National curriculum framework 2005*. New Delhi: NCERT.
- National Council for Teacher Education (1999). *Sri Aurobindo on education*. New Delhi: NCTE.
- Vygotsky, L. (1978). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.
- Wadsworth, B. J. (1996). *Piaget's theory of cognitive and affective development*. White Plains, NY: Longman.