FICCI

MAKING
OUR CHILDREN
FUTURE-READY

A framework for developing and assessing critical non-cognitive skills.

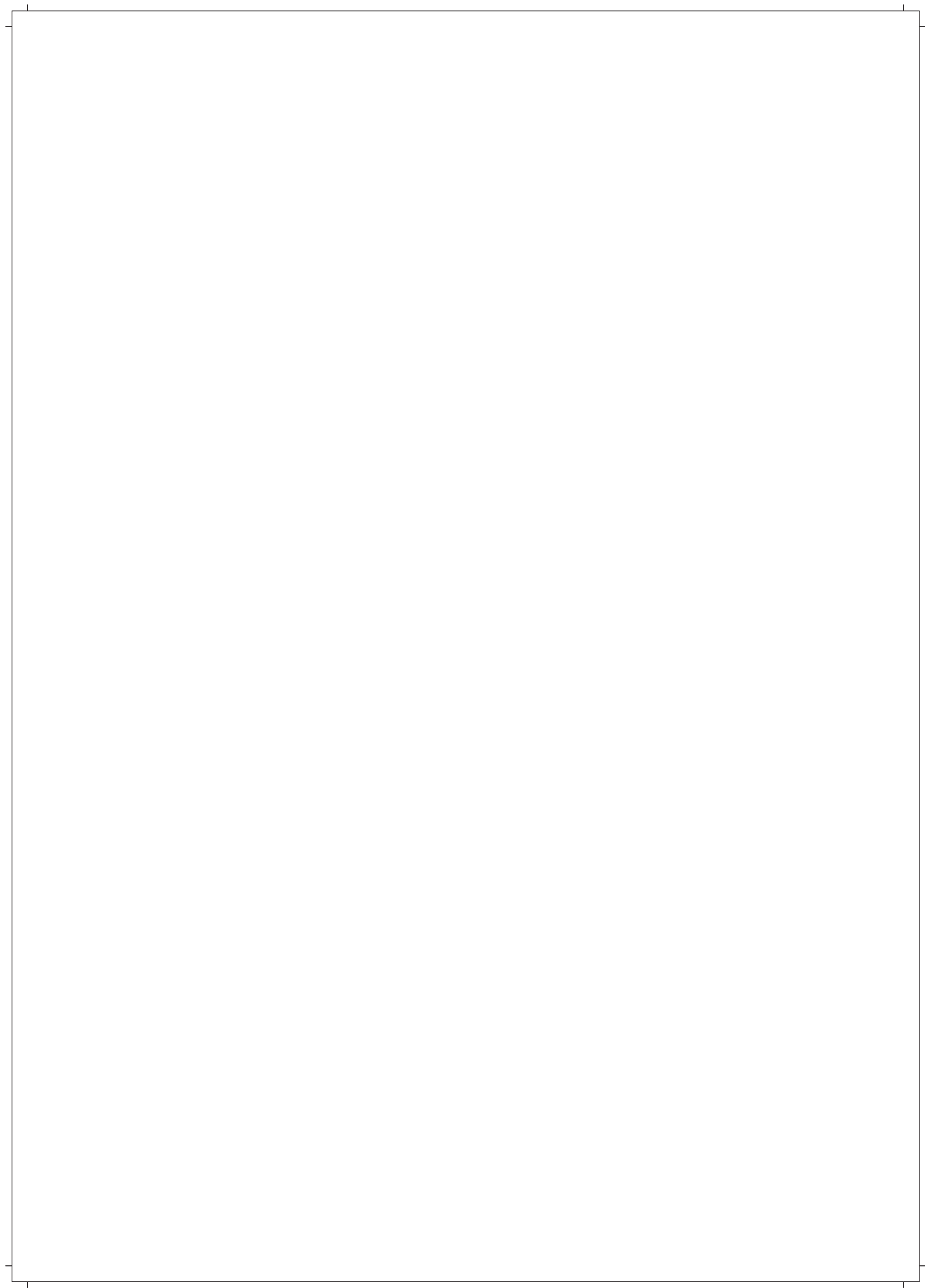A work-in-progress concept note from the FICCI Committee on School Education

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FOREWORD

The objective of this note is to explain what is traditionally called the 'non-cognitive' domain in the context of education. The document presents few important initiatives taken in this area by different agencies world-wide and builds a context and the need for a framework in India. Later, in the document we propose to call the non-cognitive domain as 'Personal and Social Well-being' (PSWB) and suggest a framework for its assessment.

Development in children occurs in multiple areas (physical, emotional, social, moral, language, cognitive etc.) simultaneously and education aims at nurturing a combination of skills, competencies and dispositions, in these areas, to help deal positively with self and the world at large. The document attempts to suggest the development of skills that contribute to personal and social well-being as the foundation of all teaching-learning in the school. It further highlights the importance of these skills as vital to fulfilling the aims of education, as stated by the National Curriculum Framework, 2005. It goes on to build a case for inclusion of this domain in all school processes to enable and foster personal and social well-being of students. It culls out major themes suggested by different initiatives (proposed by various national and international agencies: WHO, NCERT, CASEL, etc.) and supplements them by proposing a comprehensive model of PSWB assessment. We suggest PSWB as a component of over-all well-being of an individual. The concept of well-being with its various aspects is defined, from different perspectives, for clarity. *The prominence of PSWB is established as the basis for achievements in personal, social, and academic areas that helps the individual to face every day existential challenges. Another reason to delineate this aspect of the individual's wellbeing is to build sufficient and necessary awareness around this area within the ambit of school, which is, so far, much neglected in India. While the paper emphasizes on the development of personal and social wellbeing of the children, it does not aim to undermine other aspects of an individual's wellbeing viz. livelihood & action, health & physical wellbeing, etc.*

We hope that once implemented, PSWB framework will enable the schools to implement processes that can contribute to the comprehensive development of children. We believe school processes based on the framework will support teachers in understanding students and developing strategies to become meaningful contributors to the society by nurturing individual potential of children, who are at the heart of this endeavor.

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EXECUTIVE SUMMARY

GUIDING PRINCIPLES OF THE FRAMEWORK

1. *Children have innate abilities that need nurturing to reach their potential.*
2. *Children need a conducive environment to grow holistically.*
3. *Child development occurs in multiple areas simultaneously. Development or the lack of it in any one area impacts that of the others.*
4. *All experiences provide learning opportunities and impact the development of children.*
5. *The adults around the child play a pivotal role in children's wellbeing both positive and negative.*
6. *Caregivers (parents/teachers) play an important role in children's early life in helping them to understand the psycho-social context.*
7. *Children flourish in a supportive and non-threatening environment.*
8. *Personal Social Wellbeing is foundational to all aspects of learning and development of the child.*
9. *Children's responses to situations are dynamic and dependent on various factors.*
10. *All children are capable of learning and need equal opportunity and individualised attention to reach their potential.*
11. *Children learn by various modes (Visual, Auditory, Kinesthetic, Tactile) and therefore giving them opportunity to explore and learn through preferred modes will facilitate and strengthen their learning.*
12. *Personal Social Wellbeing is progressive in nature and it can be nurtured at any age.*
13. *The relationship between the individual and his/her milieu is symbiotic and therefore the wellbeing of an individual leads to that of the society.*

UNIQUE FEATURES OF THE FRAMEWORK

1. *Personal Social Wellbeing Framework is developmental in nature.*
2. *Personal Social Wellbeing Framework is based on Aims of Education, National Curriculum Framework' 05.*
3. *The attributes in the Personal Social Wellbeing Framework are dynamic and hence, are not intended for labelling.*
4. *Personal Social Wellbeing Framework has implications for all teaching learning experiences in a school.*
5. *It proposes to look at education that nurtures and supports holistic child development.*
6. *It assumes all school processes affect the Personal Social Wellbeing of students and it does not look at students in isolation.*
7. *Personal Social Wellbeing Framework does not have a separate syllabus and refers to processes in all school activities.*

INTRODUCTION

The Non-Cognitive Domain

The **non-cognitive skills** are capacities of an individual that are largely influenced by socio-cultural factors. The term non-cognitive has been subject to endless interpretations by scholars in psychology and various other social sciences. The majority of literature on non-cognitive skills explains these as social - emotional response related to self and others. Typical examples of non-cognitive skills are decision making, motivation, persistence, co-operation, empathy etc. These skills develop as a result of multiple interactions among the different environmental influences. They manifest on a continuum, and do not follow any particular order of development, making them difficult to quantify. Another distinct feature of the non-cognitive skills is that their manifestation varies in different contexts. These comprise the affective and social contexts that underlie various mental processes that an individual engages in. An individual might have the skills and competencies but can use his discretion to utilize them based on various other factors. For instance, a student intrinsically motivated to learn, might not come across as one, in a particular subject, because of the experiences with teacher instead of the subject per se. Hence, we can call non-cognitive skills as fluid in nature.

Non-cognitive domain is often used interchangeably with **co-scholastic areas, affective domain softskills** etc. Though we understand that there are some overlaps between these concepts but our attempt is to present the idea of the non-cognitive domain in a simple framework to build a common understanding.

Research uses **'Non cognitive domain'** as an *umbrella term* for all the variables that contribute to various social, emotional, personal skills used in academic, personal, and social situations. On the other hand, the traditional definition of the cognitive domain refers to mental processes that are usually utilized in academic performance (but not solely) and therefore can be gauged by recall, ability to process information constructively, and to reach logical conclusions. It encompasses processes such as: **perception, memory, retrieval of information, processing of information laterally- for future use, and categorization.** This domain can be assessed and quantified using a standardized IQ test or many other standardized tests that measure math, language, science, logical reasoning etc.

This traditional distinction between the cognitive and non-cognitive domain can be said to be superficial because they both involve mental processes that are not mutually exclusive. The mental processes involved in the cognitive activities are also utilized in many daily life situations even outside of academic performance e.g. in a mundane activity like meeting with acquaintances (non-cognitive), it is important to remember people in different contexts, their behaviours, remember previous interactions and then emote accordingly. Similarly, mental processes related with academic activities (cognitive) include components like interest, motivation, persistence, that effect performance. Consequently, we notice the interplay of **'cognitive'** and **'non-cognitive'** processes in tandem. We will also emphasise that in contrast

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to cognitive aspects, non-cognitive aspects cannot be specified as tangible terminal behaviours, since they comprise elements of personality which manifest themselves in interest, attitudes, personal and social behaviour and value systems. That these form integral part of the set of outcomes expected to be acquired every individual completing the basic education programme is well accepted. It is also recognized that unlike learning outcomes in the cognitive domain, those in the non-cognitive domain, particularly the affective characteristics, cannot be specified in terms of minimum levels. Nevertheless, the need to imbibe certain basic values as part of the process of growing and learning at the primary level of education cannot be questioned. In fact, primary level education provides an ideal setting for this purpose as children at this level are at a plastic age and the experience provided to them at this stage can have a more lasting impact in building their personality.

Acknowledging this considerable overlap it is only fair to rethink about these domains differently. Therefore, we propose to call the two areas as competencies and skills for livelihood, action, and economic aspects of well-being and those for **personal** and **social well-being.**

Nobel prize-winning economist **James Heckman (Heckman & Rubinstein 2001)** popularized the term non-cognitive and argues that beyond academic knowledge and technical skills, non-cognitive factors such as motivation, time management, and self-regulation are critical for later life outcomes, including success in the labour market. While there are decades of research on the innumerable factors that have been tied to later academic and job market success, it is difficult for school practitioners to know how all of these factors fit together to affect students' success.

From the times of Aristotle, there has been a concern for defining well-being and identifying its constituents. Well-being is most commonly used in philosophy to describe what is non-instrumentally or ultimately good FOR a person. **(Stanford Encyclopaedia of Philosophy)**

'We take what is self-sufficient to be that which on its own makes life worthy of choice and lacking in nothing. We think happiness to be such, and indeed the thing most of all worth choosing, not counted as just one thing among others' **(2000 [C4 BCE], NICOMACHEAN ETHICS, 1197b, tr. Crisp).**

The Oxford dictionary defines well-being as "the state of being comfortable, healthy, or happy." Well-being is a 'condition' or a state of an individual but of 'what kind' has to be qualified with the area of well-being of interest (ex. Economic well-being, physical well-being etc.). Therefore, in common parlance, well-being is referred to as either over-all well-being (general well-being) or is mentioned as specific: physical well-being, social wellbeing etc.

The New Economic Forum (NEF) defines it as:

Well-being is most usefully thought of as the dynamic process that gives people a sense of how their lives are going, through the interaction between their circumstances, activities and psychological resources or 'mental capital'.

NEF also proposes an approach to understand children's well-being:

NEF suggests that it is helpful to think of children's well-being as a dynamic process, in which a child's external circumstances (e.g., their socioeconomic background, family

circumstances, physical surroundings) are constantly interacting with their individual characteristics (e.g., their personality, cognitive ability and so on) to satisfy - to a greater or lesser extent - their needs and thus build psychological resources, capabilities and positive interactions with the world around them. (NEF, 2008).

As stated above, the all-round development of the individual is a result of interplay of various influences from home, neighbourhood, peers, and society, from the childhood. **The school,** with its structured approach, plays a critical role in a child's development and acts as a mediator of all other influences in a child's life, ideally trying to minimize the impact of negative influences and enhance positive ones. To venture into such an enormous task of taking responsibility of holistic development of a child, the school needs some framework or guiding principles that will form the basis of implementation of its various programmes.

While many policy efforts have focused on increasing academic preparation, there is also a growing recognition that aims of education should not be limited to only building students' content knowledge and academic skills, but also fostering a host of **non-cognitive competencies** - sets of behaviors, skills, attitudes, and strategies that are crucial to students' academic performance and persistent in higher education.

The **NPE-1986** specifically highlights the need for promotion of values such as India's common cultural heritage, egalitarianism, democracy and secularism, equality of sexes, protection of the environment, removal of social barriers, observance of the small family norm and inculcation of the scientific temper. The policy calls for strengthening a world view which treats the whole world as one family by motivating the younger generation for international cooperation and peaceful coexistence, education should foster an awareness of the equality of all by removing "prejudices and complexes transmitted through the social environment and the accident of birth".

The National Curriculum Framework, in our country, suggested by **National Council of Educational Research and Training (NCERT)** has listed some aims of education.

The aims of education as mentioned in the **National Curriculum Framework 2005 (NCF2005)** are:

- Commitment to the democratic values of equality, justice, and freedom, sense of other's wellbeing, secularism, respect for human rights and dignity

- Ability to work and participate in economic processes, and social change

- Independence of thought and action

- Work with others with a spirit of cooperation

- Respond to new situations in a flexible and creative manner

- Aesthetic appreciation and creativity

The **role of school** as envisioned by the National Council of Education Research and Training (NCERT) is to provide experiences to reinforce and internalize these aims with reason and understanding in a holistic manner.

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From the above perspective, one can say that all educational activity is directed towards capacity building process for the well-being of the individual and that of the society. The role of the school is to build knowledge, skills, and attitudes in children that contribute to their overall well-being. Therefore it is imperative that our education system is comprehensive enough to contribute to holistic development of the individual. According to a study by Heckman, 1999,

"...the preoccupation with cognition and academic "smarts" as measured by test scores to the exclusion of social adaptability and motivation causes a serious bias in the evaluation of many human capital interventions..."

As stated, the over-arching aim of education remains unaltered, but its exclusive emphasis with contribution to economic progress has tilted its focus in favour of the academic subjects. And, over the years, the emphasis has come on mere acquisition of information (vis-à-vis knowledge), and reproduction of facts at the time of examination, which has become synonymous to education.

But, recently, with the implementation of CCE based on the recommendations of RTE (2011) the non-cognitive domain has started receiving the much needed attention in education.

It is in this context that we suggest a different route to achieve the aims of education for each child. We believe that all acquisition of knowledge, skills, and understanding within the school should be built on a strong foundation of Personal and Social Well-Being of children.

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Construct: What is Personal & Social Well –being?

The Personal and Social Well-Being framework emphasizes the importance of the personal and social well-being of the children as an indispensable part of their basic education. Research in this area mostly reiterates the impact of PSWB on academic and economic/financial achievements. Theframework intends to expand the impact of personal & social well-being programmes as foundational to prepare future citizens to meet existential challenges with ease, instead of limiting the influence of PSWB to only academic and economic achievements.

In this document, Personal and Social wellbeing (PSWB) is looked at as an integral aspect of the child's (&individual's) overall wellbeing. While the paper emphasizes on the development of personal and social wellbeing of the children, it does not aim to undermine other aspects of an individual's wellbeing viz: livelihood & action, health & physical wellbeing, etc.The prominence of PSWB is established as the basis for achievements in personal, social, and academic areas that helps the individual to face every day existential challenges. Another reason to delineate this aspect of the individual's wellbeing is to build sufficient and necessary awareness around this area within the ambit of school, which is so far much neglected in India.

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,

"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 are not only harmless but also 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 **Aims of Education** position paper (NCERT) states:

Education must be a continuous process of self-discovery, of learning the truth about oneself. This is a life-long process; but the school, through insightful teaching and learning situations of various kinds, can bring home to the child the great importance of this process.

In the light of the above excerpt, time now it's time now too realign the process of education to the aims of education and to bring attention from the content being learnt to the individual – the 'person', who is at the heart of the learning process.. The sole emphasis on curriculum, syllabus, and texts, needs to be shared equally with the abilities, characteristics, and strengths of the individual that enable him/her to learn and reach his/her potential. This part of the individual forms the basis of personal and social well being. The holistic development of a child needs to be seen as a gestalt of academic competencies, physical well being, personal and social well being.

Aiming for this holistic development of the individual, school must attend to components of personal & social well being as an integral part of its transactions with students. The 'Aims of Education' position paper states, "Value education cannot be imparted as a separate bit of education; the whole of education has to be value education".

These skills acquired in the process of holistic development impact the process of learning and how the learning manifests in various day to day activities that education aims to achieve.

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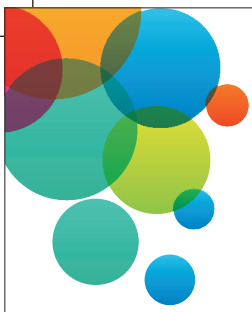
Holistic Education in the Indian context:
Historical Perspective

The recognition of importance of the components of personal and social well-being is not a Western phenomenon. Many Indian thinkers, philosophers, and educationists have expressed similar aims for education in their works.

RabindraNath Tagore (1861-1941):

RabindraNath Tagore was one of the first in India to argue for a humane educational system that was in touch with the environment and aimed at overall development of the personality. Tagore believed that children will be able to respond in a desirable manner if a conducive environment was created by the teacher, her/his pedagogy, and enabling conditions of the institution.

I try to assert in my words and works that education has its only meaning and object in freedom–freedom from ignorance about the laws of the universe, and freedom from passion and prejudice in our communication with the human world.

His sensitivity towards children and cognizance of apathy of the education system, which was and still is information driven, can be noted in the following statement:

We rob the child of his earth to teach him geography, of language to teach him grammar. His hunger is for the Epic, but he is supplied with chronicles of facts and dates...Child-nature protests against such calamity with all its power of suffering, subdued at last into silence by punishment. (Rabindranath Tagore, Personality, 1917: 116-17)

M. K. Gandhi (1869 -1948)

In her account of the NaiTalim (The Story of NaiTalim), Marjorie Stykes noted that "basic national education" of 1937 was planned as the basic preparation of Indian children for sharing in a national society which itself aims at basing every aspect of its life, social, economic, political, cultural, on truth and on non-violence..."

According to Gandhi, literacy was only a means to education and not an end. Education was looked at something that is holistic and meaningful to the individual instead of just learning of letters. He emphasized that education should enable individuals to become self-supporting and enable their all-round development. This way of learning to make a living for oneself should not be a mechanical process but a scientific way of learning the handicraft, which also includes the history, geography and arithmetic associated with it.

J Krishnamurthy (1896 – 1986)

(From: Education and the Significance of Life J. Krishnamurti)

"Understanding comes only through self-knowledge, which is awareness of one's total psychological process. Thus education, in the true sense, is the understanding of oneself, for it is within each one of us that the whole of existence is gathered"

In his book, Krishnamurthy emphasized that education must enable individuals to think and respond in ways that are unique to them instead of conforming to a pattern that is demanded by the authority.

Our present education is geared to industrialization and war, its principal aim being to develop efficiency; and we are caught in this machine of ruthless competition and mutual destruction. If education leads to war, if it teaches us to destroy or be destroyed, has it not utterly failed?

To bring about right education, we must obviously understand the meaning of life as a whole,to understand life is to understand ourselves, and that is both the beginning and the end of education.

Krishnamurthy mentioned that the right kind of education is not based on any one kind of philosophy or technique. He said that the aim of education is to help individuals become free and mature. And thus, help them to understand life and themselves more clearly.

Sri Aurobindo (1872 – 1950)

The Aurobindo philosophy makes explicit that education that is information driven will only be incomplete and may also affect the process of education negatively. According to Auro writings, integral education is the only way to look at education holistically. Integral education sees human mind, body, and spirit in unison and not in isolation. Thus there is emphasis on the need for teacher to be a facilitator, who scaffolds learning through various experiences and not just impart information in a mechanical way. To quote from ManojDas' account of Aurobindo's education and philosophy (NCTE publication)

"Any system of education founded on theories of academic perfection, which ignores the instrument of study, is more likely to hamper and impair intellectual growth than to produce a perfect and perfectly equipped mind. For the educationist has to do, not with dead material like the artist or sculptor, but with an infinitely subtle and sensitive organism. He cannot shape an educational masterpiece out of human wood or stone; he has to work in the elusive substance of mind and respect the limits imposed by the systems."

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REVIEW OF LITERATURE: PROGRAMMES AND POLICIES THAT MENTION ABOUT WELL-BEING OR ESSENCE OF WELL-BEING

The recognition and measurement of skills that contribute to subjective well-being gained impetus during and post-World War II, when along with tests of various 'cognitive' competencies that were administered to recruit efficient people in the armed forces, attention were drawn towards 'other qualities' that make these individuals more efficient. This was the genesis of building up of the body of knowledge around the 'non-cognitive'* skills. Research has consistently indicated that the non-cognitive skills serve as enablers for success in academics and economic activities, later in life. (**Lee, Jihyun and Valerie J. Shute. 2009)** Research suggested that the 'non cognitive skills' promoted academic achievements in college and later in getting jobs and retaining them

Attempts to study and quantify the social-emotional domain have been primarily aimed to measure overall life satisfaction as reported by adult or geriatric population. While doing the secondary research on non-cognitive skills, it was found that different studies have emphasized on different skills as important **(Self-Regulated Learning, SEL Framework, ETS NCS Framework, 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. According to their policy document,

> Life skills training is an efficacious tool for empowering the youth to act responsibly, take initiative and take control. It is based on the assumption that when young people are able to rise above emotional impasses arising from daily conflicts, entangled relationships and peer pressure, they are less likely to resort to anti-social or high risk behaviours. (CBSE)

Department of Education (MHRD, DoE, GoI, 1999) - The Department of Education 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 development phases. It helps them to list minimum learning levels and assess according to mentioned criterion. Their 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.

These programs achieved significant effects across all six of the outcome categories studied (five categories in the after-school review): improved SEL skills; attitudes toward self and others; positive social behaviours; reduced conduct problems; emotional distress; and improved academic performance findings suggest that SEL programming not only does not detract from academic performance but actually increases students' performance on standardized tests and grades.

*(CASEL was founded in 1994 by Daniel Goleman, the author of Emotional Intelligence, educator/philanthropist Eileen Rockefeller Growald, and a group of distinguished researchers and practitioners.)

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 well being.

"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". The SEAL programme was rooted in the five aspects of emotional intelligence model by Daniel Goleman (1994).   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". 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

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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.

As opposed to psychological wellbeing as an attribute which can be achieved in a fixed quantity, research by Ryff and Keyes (1995) has proposed psychological wellbeing as a combination of a few dynamic components that are instrumental in determining the psychological wellbeing of an individual. The theoretical framework by Ryff& Keyes captures the psychological constructs like Maslow's 'self-actualization', Jung's Individuation, Roger's 'Fully Functioning Person', psychosocial development as proposed by Erikson, etc. According to their research,

"The convergence of these multiple frameworks of positive functioning served as the theoretical foundation to generate a multidimensional model of well-being (Ryff, 1989b, 1995). Included are six distinct components of positive psychological functioning (see Appendix). In combination, these dimensions encompass a breadth of wellness that includes positive evaluations of oneself and one's past life (Self-Acceptance), a sense of continued growth and development as a person (Personal Growth), the belief that one's life is purposeful and meaningful (Purpose in Life), the possession of quality relations with others (Positive Relations With Others), the capacity to manage effectively one's life and surrounding world (Environmental Mastery), and a sense of self-determination (Autonomy)"

INDIAN POLICIES THAT REFER TO HOLISTIC EDUCATION

MUDALIAR COMMISSION (1952 - 53)

The Mudaliar Commission was set up to understand and reorganize the then existing state of the secondary schools. It saw secondary school as an important link between the elementary education and the higher education. The report suggests that good methods of teaching should aim at not only intellectual but also social and moral implications. It put special emphasis on engaging students in at least one handicraft at the secondary level. The report elaborates on the limitation of the education system present and also suggests ways in which the concerns with the existing system could be met. It makes extensive and elaborate suggestions and recommendations related to pedagogy, school wide processes, assessments and facilities and services necessary to make education holistic and meaningful.

To quote from the report:

The twentieth century has witnessed a widening of the meaning and scope of education. The school of today concerns itself not only with intellectual pursuits but also with the emotional and social development of the child, his physical and mental health, his social adjustment and other equally important aspects of his life-in a word, with an all-round development of his personality. If examinations are to be of real value they must take into consideration the new facts and test in detail the all-round development of pupils.

THE NATIONAL POLICY ON EDUCATION (1968)

In subsequent years, the National Policy of education that was formulated in 1968. The policy suggested that education be looked at holistically and therefore, along with emphasis on science and technology, it also recommended the development of moral values, and of education that is more relevant to the life of the students.

THE NATIONAL POLICY ON EDUCATION (1986)

The National Policy on Education (1986) emphasized on removing the inequalities in the education system. The policy recommended special programmes for marginalized groups such as women, STs, SCs, physically disabled etc. It encouraged integration of physically disabled students in the mail stream. It made provisions for special schools with hostels and recommended that teachers be trained to deal with special difficulties of handicapped children. Its major focus was on child centric approach, hence catering on an individual level to the needs of the children was strongly suggested. And, as a big step, corporal punishment was firmly excluded. It suggested that education must be culturally applicable to be able to

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inculcate values in the children that are desirable in the society. It also introduced vocational courses to enhance the employability skills of students completing the school.

YASHPAL COMMITTEE REPORT LEARNING WITHOUT BURDEN (1993)

Yashpal Committee was set up in the wake of recommendations made by the NPE and the resultant effects of increased emphasis on learning and examination. It suggested that due to overload of information that students are expected to master in school, very little outcome is achieved. It takes away the joy from both the teacher and student. It strongly recommends against the importance endowed to the examinations and states that education has been reduced to the process of preparation of exams. It highlights some important issues related to the workload of teacher in terms of increased PTR and recommends 1:40 PTR to enhance effectiveness of both the teachers and the students. While suggesting child centric ways of teaching the content it recommends that the teachers must teach content from the context of the students, which will help them in relating to the content easily and help them think, analyze and reason from their own experiences. It recommended group achievements and co-operative learning processes to enhance the learning levels.

PROPOSED FRAMEWORK

In our current work, the 'non-cognitive' domain is called the 'personal and social well-being' (PSWB). Current version of the framework is a reflection of our understanding in the domain and is subject to further changes as the framework is piloted and validated in the educational and social context.

The guiding document for this construct is the National Curriculum Framework, 2005. The larger PSWB is subdivided into personal and social areas. The three areas that are explored in the personal domain are: **Independence of thought and action, learning to learn, and appreciation.** In the social domain the areas are sensitivity to other's well-being, participation in democratic processes and social change.

 Since this framework is for school students (k-12) it intends to keep the developmental and growth perspective of these components. **According to this view, the skills and processes suggested are looked at as capable of acquisition and development at any stage in life. Thus, it attempts to suggest a developmental course for a particular child.** The framework not only acknowledges the dynamic nature of the components of personal & social domains, it also aims to capture their developmental course. The framework attempts to identify resources that an individual utilizes to deal with a novel experience and how s/he can adopt various new processes to have a sense of wellbeing in personal and social domains. The unique feature of this framework is that it does not leave the sole responsibility of personal and social well-being of an individual with her/him. It also recognizes features of conducive environment and possible facilitative behaviours of adults (around the child) that nurture the personal and social well-being of the individual.

Sensitivity to Other's Well-Being

- ❖ Antipathy
- ❖ Apathy
- ❖ Concern
- ❖ Empathy
- ❖ Concern
- ❖ Appropriate Emotional Response
- ❖ Respect for Human Dignity and Rights
- ❖ Social Responsibility / Environmental responsibility

Participate in Democratic Processes & Social change

- ❖ Prejudice
- ❖ Social Insensitivity
- ❖ Social Involvement
- ❖ Respect for Diversity (social*, economic, political, Religious)
- ❖ Ahimsa

Independence of thought & Action

- ❖ Dependence
- ❖ Decision Making Comprehension Problem Solving Reason
- ❖ Communication
- ❖ Creativity
- ❖ Reflection & Introspection
- ❖ Self-Awareness

Learning to Learn

- ❖ Resistance
- ❖ Passivity
- ❖ Effort & Attempt
- ❖ Motivation & Interest
- ❖ Curiosity
- ❖ Persistence
- ❖ Responsibility
- ❖ Adaptability

Appreciation

- ❖ Conservativeness
- ❖ Receptivity
- ❖ Receptive Creativity
- ❖ Expressive Creativity
- ❖ Critical Inquiry
- ❖ Apreciation

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DESCRIPTION OF ATTRIBUTES AS OPERATIONALIZED IN THE FRAMEWORK

INDEPENDENCE OF THOUGHT AND ACTION

Dependence: Responds only to problems or tasks explicitly given to him or her and relies on others to make simple decisions for self.

Comprehension: Seeks to understand a problem holistically.

Problem Solving: Plans strategies and works systematically to reach a solution.

Reason: Draws parallels from previous experiences to handle a novel situation and weigh the pros and cons of possible options to solve problems.

Communication: Listens actively to others and articulates oneself coherently.

Creativity: Takes a novel approach to understand situations to achieve innovative results.

Reflection and Introspection: Looks at one's experiences, thoughts, emotions, and action and analyze these from one's/ others' viewpoints.

Self- Awareness: Identifies one's thoughts and emotions and expresses or makes decisions in concert with them.

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LEARNING TO LEARN

Resistance: Hesitant to explore ideas/information/unfamiliar activities.

Passivity: Works on tasks given to him/her and takes/expresses no initiative/ excitement to engage in new activities.

Motivation & Interest: Eager to learn new concepts and seeks appreciation from teachers and peers.

Curiosity: Explores novel things to familiarize him/herself.

Persistence: Keen on completing /solving a problem irrespective of how long it takes.

Responsibility: Accomplishes goals by planning and executing by utilizing effectively the various resources available.

Adaptability: Displays a strong sense of commitment to his/her learning keeping in mind one's own strengths and needs and is open to change.

APPRECIATION

Conservativeness: Takes a firm stand on personal beliefs and does not see merit in others' points of view.

Receptivity: Accepts set rules, and acknowledges the importance of accepting differences in people, thoughts and ideas.

Receptive Creativity: Expresses excitement over others creative expressions and is able to appreciate thoughts, ideas, works, traditions, theories etc.

Expressive Creativity: Gives new meaning to already existing thoughts and ideas, and finds unique ways to express it.

Critical Enquiry: Familiarizes oneself with the nuances of the content area.

Appreciation: Relates to seemingly different concepts, ideas around him/her and is aware of the impact of these connections.

SENSITIVITY TO OTHERS' WELL-BEING

Antipathy: Displays behaviours that are destructive to others.

Apathy: Plans or executes plans without consideration to others around

Concern: Expresses interest, inquires about others' welfare and shows willingness to help.

Empathy: Acknowledges and shares others' emotions

Appropriate Emotional Response: Articulates ones emotions in concert with situation and people around

Respect for Human Rights and Dignity: Extends courteous expressions of regard towards everybody.

Social responsibility/ Environmental Responsibility: Understands the impact of one's contributions towards society and environment and actively participates to benefit them at large.

PARTICIPATION IN DEMOCRATIC VALUES AND SOCIAL CHANGE

Prejudice: Shows negativity towards people from different social, economic, political or religious backgrounds based on one's attitudes/presumptions.

Social Insensitivity: Not readily responsive towards people from varied social, economic, political or religious backgrounds.

Involvement: Involves, encourages and shares appreciation with people irrespective of their social, economic, political or religious backgrounds.

Respect for Diversity (Social*, Economic, Political and Religious): Expects equity for people from diverse backgrounds and acts in accordance to this belief.

Ahimsa: Exhibits a firm belief in actively intervening in situations to stop or prevent injustice, oppression or discrimination against people and other living beings without violence.

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METHODOLOGY

The **guiding document** for the current set of indicators is the **National Curriculum Framework, 2005**. The two domains (personal & social) have evolved from suggested aims of education in the National Curriculum Framework, 2005 (Perspective chapter). The sub-domains and indicators have been developed keeping the recommendations made therein. Statements of observable behaviours will be written for all indicators for both domains and will be validated by actual classroom observations. These classroom observations will put the academic exercise of developing a framework to a practical test-bed that will modify, strengthen and   ratify the proposed framework. Along with the student responses, a set of statements will also be written for teacher responses for the purpose of cross-validation of the findings from students self-report. Another set of items will be written to acknowledge the enabling conditions, in the school, that promote or restrict certain student behaviours that contribute to their personal and social well-being. Post validation on the ground, set of situational judgment tests, self-report items, will be generated and validated, with statistical rigor, to evolve a tool.

EXPECTED OUTCOMES

Like mentioned above, the Personal and Social Well-Being Framework is built from the developmental perspective, where attributes can be acquired at any stage of life, given enabling conditions that contribute to that area. The **assessment of attributes of Personal and Social Well-Being** will be reported by the individuals and would not quantify these in any absolute terms. The results of this can be used to give feedback to individuals about their strengths and weaknesses. We hope that it can be used to help teachers develop strategies and activities to reinforce students' strengths and identify areas for improvements.

Apart from students, the insights from this can also be directly used to guide **teacher training modules** – giving specific inputs into what all enablers are important for children, the developmental path of such enablers, activities to strengthen desirable components, areas of deficit, and perception of self.

As factors of PSWB become an integral part of the school transactions, we hope that its use and understanding will have a policy level impact in making school a centre for holistic development of students, to reach their potential. This way we hope to impact a systemic change in the way education is approached and its impact on a child's life. We need to keep in mind the necessity of incorporating PSWB, along with academic inputs for the holistic development of the child, which is one of the overarching aims of education.

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LIMITATIONS

While proposing factors of PSWB, the attempt was to make it as comprehensive as possible. However, we realize that there are a few challenges in the proposed framework. We realize that many terms are value-loaded – and might be interpreted differently by people from different backgrounds. The evaluative component as proposed by the framework seems to be in tandem with the urban mindset, leaving the rural population at a disadvantage – again, it brings for the our reliance on a robust tool development process to not treat familiarity with such concepts as advantage or disadvantage for a certain groups(urban, rural, different SES, etc.). Certain processes mentioned in the framework are held high in certain communities/cultures while they might not be appreciated in other (Independence, creativity), therefore, assessment should not put any cultural (or other) group into a disadvantage because of their traditional practices or beliefs. This can be achieved by having an extremely culturally sensitive tool, or to have different versions for significantly different cultural/regional groups.

While making school as a mediator of various influences in a child's life and responsible for building abilities of children to impact the PS wellbeing, the teachers play a pivotal role. It is important that teachers internalize the need for promoting PS wellbeing among students and are actively involved in building practices that will in turn be required for the process. Teacher facilitation of such values from elementary to high school requires modeling, explanation, and opportunities for internalization of various processes. This will require intense and broad based teacher training and support before it is implemented for the students. Since much of the influence in this domain of comes from the family, an attempt to involve parents as an essential contributor to the assessment of the components needs to be explored in a feasible manner.

Another limitation of the framework is that it does not touch upon the area of **special need.** Special need is a term used mostly in **educational context** to describe individuals who require assistance for disabilities that may be **medical, cerebral or psychological**. Special needs also require sound understanding about clinical diagnostic and functional development. Because special needs vary in their requirements and severity, it is impossible to address it only in educational context. We are cognizant that it's a big limitationbut in the current framework we are trying to deconstruct non-cognitive domain mainly from educational perspective.

We hope that once implemented, PSWB framework will **enable the schools to implement processes** that can contribute to the comprehensive development of children. We believe school processes based on the framework will support teachers in understanding students and developing strategies to **become meaningful contributors to the society** by nurturing individual potential of children, who are at the heart of this endeavor.

NEXT STEPS

Sustained School
engagements;

Awareness:
Teacher modules

Building Sensitivity
around PSWB

Stake-holder Seminars
& Expert Conferences

Building
Understanding

Implementation with
other teams: Partner
organisations, States,
Etc

Assessment

Step 1   :   Building Understanding in the area (current status)

Step 2   :   Sustained school engagements

Step 3   :   Awareness: Teacher workshops, Stake-holder Seminars, Expert conferences, etc.

Step 4   :   Implementation with other teams: Partner organizations, State Governments etc.

Step 5   :   Assessment – design, implementation & usage

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ANNEXURES

SCHOOL VISITS

As mentioned; one of the steps in part of understanding the non-cognitive domain is to have sustained school engagements. Primarily school engagements are done through school visits and interaction with the relevant stakeholders. The objective of these school visits is to identify the enabling factors for comprehensive evaluation in school system and thus develop a framework for the same. Also classroom observations will help in the validation of statements of observable behaviours and indicators for the domains. The visits have also helped the members in observing school processes, actual classroom implementation of the educational philosophies and theories aligned with overall development of the learners.

The team working on deconstructing the meaning of formative assessment has made several school visits. Below are samples of the school visits done by the team-

Annexure 1- Abhaya School Visit

Annexure 2- Shantiniketan School Visit

SCHOOL OBSERVATION

A guideline for school observation was developed in order to help the team develop a common lens for reflecting on the schools processesand for observing underlying philosophies of assessments in specific. It can also be useful in assessing the range of reform models and change strategies underway in a school at any given time.

Guiding questions helpedmembers organize their thinking about what they want from a school visit and to find mechanisms well aligned with their goals.

SAMPLE OF QUESTIONS IN NON-COGNITIVE AREA ASKED DURING SCHOOL VISITS-

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?

    II. Does it reflect in the school climate? If yes, how?

III. How is discipline understood by the school? Is it assessed and reported? (Discipline stems from the philosophy. Hence will mostly reflect the understanding about children and approaches to deal with them.)

Observation Checklist for Question 1

☐ Fear-free environment for children - aspects/ practices/ in the school, up and above what is discussed with staff and written in policy, that appeals / stands out for you.

☐ Appreciation by teacher / adult ofchild/ children.

☐ Nature of relationship between teachers and students and amongst students.

☐ Participation levels of children in decision-making, small and big issues.

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?

OObservation Checklist for Question 2- VI

☐ *Teacher notes* – what and how often does a teacher write about a child? Is it sustained and devoid of routinization / mechanization avoided?

☐ *Consensus on the range* of abilities, skills that a child uses cutting across disciplines to be observed, recorded and/ or reported. What, ifany?

☐ *Feedback* – Are feedbacks provided? To whom all? How often and in what ways?

II. What is the nature of some of the literary, cultural, art, drama, crafts, sports / games related activities initiated by the school?

III. What are the perspectives of teachers on these activities?

IV. What is the methodology of teaching/learning in these subjects?

V. How are students' performances and products in these areas assessed in the school?

VI. What are the aspects other* than academics that are recorded and reported? (* - Other aspects implies evaluating child's interest, skill or/ and performance cutting across disciplines and activities like in assembly, in sports, crafts, drama etc. aspects for comprehensiveness)

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3. How creative 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 favoring exclusion?

   III. Are those / how are those needs addressed through a creative 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?

ANNEXURE I

Abhaya School Visit

Place/ Institution visited / Event & Organizer	Abhaya, a Waldorf School, Hyderabad	Dates 12th to 14th August, 2013
Persons met/ Participants	School Management, Head Teacher, Staff Members	

1.Objectives of the Visit

- **Observing** classroom practices, school processes and interacting with teachers and school management to **understand Rudolf Steiner's philosophy on education** and how it is translated into practice.

- To get a glimpse of **assessment practices** followed in the school, in the light of building our **understanding of non- cognitive/ formative assessment** in practice.

2.Background

About Abhaya School

Abhayain Hyderabad is an **alternate school** which was founded by an enthusiastic group of parents and teachers who were greatly inspired by the philosophy of the Austrian philosopher **Dr. Rudolf Steiner.** The school is spread across an area of three and a half acres in Kompally in Hyderabad. The school has classes from pre-primary to grade 10 and is affiliated to the Central Board of Secondary Education. The school follows Waldorf curriculum till grade 7 and CBSE syllabus is followed for the high school.

Steiner's Philosophy

Dr. Rudolf Steiner has given great importance to education based on a **holistic approach** to child development. He believed that a child not only develops **physically and mentally** but also at the level of the **soul and the spirit** and this development follows in stages. Each stage of the child's development has its own particular needs which can be fulfilled not only through subject matter taught in the classroom but also through various other activities like games, exercise, music, stories, dance, art and craft. Dr. Steiner developed a curriculum which

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seamlessly integrates subjects with these activities to meet the developmental needs of the children. The schools following his principles are known as Waldorf schools.

As quoted in the Abhaya School curriculum- *The curriculum is binding in nature. The Waldorf curriculum does not equate the child to what he can or cannot do or learn, but on the other hand presents the child as who he or she is or who he or she can become, in the dynamic sense of growth and change.* One of the teachers of Abhaya School mentioned that Rudolf Steiner's aim was to make every child well-equipped to take care of himself/herself and not depend on anyone for anything. Hence, along with academics, lot of focus is given to **painting, drawing, music, sports, gardening, clay modelling, and carpentry, masonry, stitching and knitting.** It is believed that these activities help in developing necessary life skills. There is a syllabus for each of these activities for different grades.

3.Observations in the School

Abhaya management has decided to maintain a maximum pupil teacher ratio of 24:1. However the highest number of students in a class at present is 17. The management feels that it becomes extremely difficult for a teacher to give individual attention if the number of children exceeds 24.

Classrooms are well ventilated. There is **no fixed seating arrangement.** On most of the occasions, while doing any activity, children sit in a circular arrangement. The desks and benches are kept along the edges of the classroom. While doing any written work, children arrange their own benches and desks in rows and columns for taking notes or for drawing.

Every **class began with a physical activity** in a particular rhythm, such as clapping, synchronized movements and so on. Teacher also spent some time playing a musical instrument along with the children.

Following sections provide some observations made in the classrooms:

Grade 4: Science

While teaching about sense organs, the teacher **blindfolded a child** and asked two children from the class to go out. After opening the eyes of the child, the child was asked to name the children who had left the classroom. This activity was repeated with several children. The purpose of doing this activity was to make children appreciate the importance of eye as a sense organ and also understand how impressions are created in the brain through sense organs.

Class 7: History

In this class the teacher started a new block on **"History of Islam"**. After the introduction and recap of the topic, children were asked to draw a picture of a mosque. The teacher helped some students, when required, with suggestions on layout and proportions.

After the above exercise, the teacher took them to the lab where there is some free space.

Children sat on the floor and the teacher told them a story of how, in Arabia, Bedouin women from the deserts used to take care of newly born children of rich people in big cities. One such Bedouin woman took care of infant Mohammad even though his mother was poor.

Next day, the teacher asked the children to point to Mecca and the Arabian Desert in the map. Then she briefly explained about Bedouins and tried to define what a tribe is. She also mentioned that **Mohammad has many spellings** and noted some of those on the blackboard. The teacher then asked each child to come to the front and explain what he/she would do if he/she had been a Bedouin woman. Some children gave various responses such as they would take care of only poor children and some said that they would take care of rich children so that they can earn money and stay in the city.

From the above sequence one can notice that the teacher was facilitating the children to **understand a period in history through stories and art.** During this process the teacher was also emphasizing positive aspects of religions and trying to sensitize the children towards different faiths.

Sports

In the playground, two teams of children when playing a ball game, the objective of which was to grab the ball and take it back to their team by outrunning the opponent. While playing this game, c**hildren were not allowed to touch or push each other** in a designated **"safe zone".** The idea behind the game, as mentioned by the mentor of the sports teacher, is to **inculcate awareness about one's one space and belongings without being aggressive**. Sports should help children in defending themselves.

Gardening

The gardening teacher worked with students in creating two compost pits and a paddy field in a small plot. The children were taught to use organic farming techniques to plant local varieties of shrubs and trees.

Eurythmy and Music

Eurythmy is a dance form which involves moving the body in a rhythm. It is quite similar to some forms of Yoga and Tai Chi. According to Steiner, this art form helps children in **exploring the external environment, reduce inhibitions and develop coordination.** In the Eurythmy class, the students were learning a set of sequences from a German teacher.

Special importance was given to playing a wind instrument called Recorder, which is quite similar to Flute. Teachers play the instrument along with the children during regular classes. The purpose of playing this instrument is supposed to help **improve lung capacity** and **concentration.**

The commitment from teachers and students observed in activities such as sports, music, eurythmy and gardening was no less in comparison to the rigor noticed in core subject areas. It is a practice in the school to send children who are not able to concentrate in a class to activity classes such as craft / stitching, painting or carpentry. When they come back from such activities the teachers have noticed that the children are able to concentrate better.

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The school aims to create a **fearless environment.** The school is separated from the neighboring fields with just a fence instead of a boundary wall. Even the staircase and the first floor have simple fencing, without any parapet wall. Children are encouraged to climb trees and jump across walls. Teachers keep an eye on such activities without being protective.

4. Pedagogy and Assessment

Planning

Teachers prepare their own lesson plans. A lesson plan consists of the **block name, topic description, objective of the lesson, description of the activities**, how these activities match with the objectives and a description of the assessment techniques to be used to understand whether the objectives have been met.Lesson plans are peer-reviewed and reviewed again by the coordinators.

Teaching in the classroom, till grade 7, is mainly **inquiry based**. Questions are posed to the children that connect to their prior knowledge and their learning in previous classes about the concept being taught. Teacher consolidates the lesson from the responses of the children.

Children are also encouraged to do lot of **observations in the nature**. The school has a huge open space and there are plenty of small plants and trees, all planted by the teachers and the children. Children are often taken out for observations and they are asked to express whatever they observe. For instance, during the rainy season lot of fungi were found in the school campus. Teacher of grade 5 was planning to take the children for a nature walk in order to observe the fungi and compare the different varieties.

Wherever possible the teacher tries to **build a story** around the main theme of the lesson. Children are expected to draw conclusions of the story in their own way. They believe that story telling is a very useful way of transacting a concept as it connects to reality and helps children to internalize the concept. They also believe that such an approach enables children to relate to a concept at an emotional level. Hence there is a greater possibility of applying the knowledge in their day to day life.

Drawing is another form of expression which the children use frequently. They often depict their learning pictorially in their notebooks. In the primary classes, pencil or pen is not allowed. Instead, the children are encouraged to use specially designed crayons for writing, as it is believed that pen/pencil puts unnecessary pressure on the child's fingers. Each child's notebook looks unique as it includes pictorial depictions made in his/her own special way.

Differentiated instruction based on learning levels was not observed at Abhaya. The teachers try to **identify the "temperaments"** in children and try to classify them as per Steiner's philosophy. These temperaments are:

- **Choleric** – strong-willed and quick tempered

- **Sanguine** – full of life, highly social, light hearted and with lot of ideas

- **Phlegmatic** – prefer physical comfort and life with order and repetition

- **Melancholic** – insightful, sympathetic and can articulate thoughts and feelings

Teachers, who are trained in Waldorf system, try to identify the temperamentof a child and use appropriate approacheswhen dealing with the child. Teachers observe minutely children's body language, dispositions and their work over a period of time to understand their temperament. To attain necessary skills in this area, teachers undergo several rounds of training and mentoring. In this context, a teacher mentioned that identifying the exact temperament of a child is not easy, as human beings may often show a combination of these temperaments. In such cases they try to identify a behavioural pattern over a period of time to come to a conclusion on the temperament of the child.

Assessment

There are **three terms** in a year and each term is divided into several blocks as described earlier. There is **no formal examination** at the end of terms or blocks till grade 7. At the end of each block, one-one interaction is conducted with each child. In the high school, assessments are conducted as per CBSE guidelines.

One can perceive **assessment seamlessly integrated with the teaching learning process. Questioning, observations and presentations** (in the form of story-telling/role play/drawing and so on) are the main tools used for **formative assessment** in the classroom. One of the teachers mentioned that without observing children, there can be no teaching. Each teacher **maintains a diary** wherein she notes down her observations about a child. These observations are **not only about the academics but about the behaviour of the child** inside and outside the classroom. Through these notes the teacher tries to understand a pattern in the behaviour of the child. Teachers also maintain **anecdotal records.** For example, a teacher mentioned that different teachers use different approaches to record their observations and there is no recommended template. This approach is adopted for both core subject areas and also while conducting activities such as gardening, sports, music, stitching and so on. During the break teachers also discuss about children in order to bring more reliability to the conclusions drawn from their own observations.

Each grade has to take up a **project work** which is all **about application of their learning.** For example, grade 3 had been assigned to construct a small house in the premises using bamboos and thatch. They also had to tile the floor. As explained by a teacher, the purpose of this kind of a project is to see how their **learning translates into real life.** They are able to make connections with various disciplines. They learn how these scattered pieces of knowledge can be applied to create new things. They make use of their **aesthetic sense** and **appreciate the importance of collaboration**. This approach helps the children in their physical development as it involves lot of body movement.

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5. Reporting and Feedback

While doing the classroom observations, it was noticed that whenever a child needed attention in any of the activities, the teacher gave **feedback** in a very **subtle** manner thereby giving an opportunity for the child to improve.

A **well-documented report** is provided to the parents on completing a block or a term. The feedback is **qualitative in nature**. A report about a block consists of a description of the block. It describes why the block is important at that stage, the topics and the activities covered in the block. Similarly the term-end report consists of a description of all the concepts covered in the term. The report provides a comprehensive description of the areas the child has done well and the areas of improvement in academics and in other areas such as **music, sports, carpentry, knitting, and craft** and so on. It also provides a comparison of the child's behaviour and attitude with his/her past behaviour on different aspects like interaction with peers, attentiveness, and way of expression and so on. This helps the parents to see their child's behaviour in a continuum.

6. How has the visit informed our understanding?

- The visit gave us an insight on how the members of an institution abiding by a philosophy work collaboratively towards achieving the aims of the philosophy.

- Education is beyond obtaining good marks in examinations. It is about **developing life skills and attitude** to face the bigger challenges in one's life. It must aim to eradicate fear from the child's mind.

- All subjects are equally important. **Integrated approach** towards teaching helps in better learning.

- **Trust and empowerment of teachers** is key to the success of an institution. At Abhaya teachers have freedom to transact lessons in their own way based on their understanding of students in their class. Learning objectives are fixed, but a teacher can take her own approach in meeting the objectives. School management prefers to act just as facilitators to help teachers meet the aims of their curriculum.

The following points reflect our understanding from the visit in the light of **non-cognitive/ formative assessments-**

- ➢ Teachers must be encouraged to believe in the importance of **holistic development** of the child.

- ➢ One has to **understand each child** thoroughly and also accept the fact that every child is important and unique.

- ➢ Observing the child from all aspects and recording is very important as it gives a **comprehensive picture** of the child. Teachers should be oriented on how this can be done in an effective manner. Every teacher has his/her own style of doing things and instead of overemphasizing too much on a format; teachers must be given freedom to document observations in their own way.

- ➢ This type of process cannot be implemented in a short period. Teachers need to undergo proper training not only on assessments but they should also be oriented on various principles underlying non-cognitive/ formative assessments.

ANNEXURE II

Shantiniketan School Visit

Place/ Institution visited / Event & Organizer	PathaBhavana and MrinaliniAnandaPathsala. Located in Shantiniketan in the Birbhum district of West Bengal.	Dates 17th to 20th September, 2013
Persons met/ Participants	School Management, Head Teacher, Staff Members	

1. Objectives of the Visit

- **Observing classroom practices**, school processes and interacting with teachers and school management to understand **Rabindranath Tagore's philosophy on education** and how it is translated into practice.

- To get a **glimpse of assessment practices** followed in the school, in the light of building our **understanding of non-cognitive/ formative assessment in practice.**

2. Background

About PathaBhavana School (formerly known as Tagore's Asrama School)

- Founded by Tagore in 1901, the school fulfils the desired goal of Rabindranath in educational front.

- Semi-residential co-educational institution

- Caters to primary, secondary and higher secondary education and is the bed-rock of Visva-Bharati.

MrinaliniAnandaPathsala

- Preparatory school of PathaBhavana , founded in 1954.

- Non-residential nursery school for the children of teachers, staff and alumni of Visva-Bharati

- The students aged between 4+ and 5+ spend two years here. On successful completion of this period, the student is eligible for class II in Patha-Bhavana

Teacher Appointment:

- Teachers are selected on UGC guidelines

- The new joinees are given an orientation course

- Peer learning as well as learning from senior teachers are encouraged

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3. Rabindranath Tagore's vision of the Asrama School:

Tagore's theory of education is marked by naturalistic & aesthetic values. He had a belief that "The widest road leading to the solution of all our problems is education."

Education can develop a new pattern of life. Culminating in the realization of Universal man. Tagore's system of education emphasizes the intellectual, physical, social, moral economic and spiritual aspects of human life. By which a man can develop an integrated personality.

- Developing a creative center to provide for its students, through comprehensive educational training, a richly diverse and complete life

- Enabling the fullest development and application of students' potentialities

- Training students in different branches of knowledge

- Developing the spirit of questioning, thinking and observation

- Cultivating interest and enjoyment in trees, birds and beasts and the varied phenomena of nature

- Experiencing the making of articles of daily use

- Encouraging the habit of keeping one's living room and surroundings clean, healthy and beautiful

- Inculcating the practice of cleanliness extending to the body, dress and personal behaviour

In our three day visit to Ashram School, we could see a glimpse of Rabindranath's philosophy.

4. Observations in the School

There are about 1200 students, 1/4 are day boarders and rest is hostellers. There are about 70 teachers in the school.

Classrooms are **well ventilated**. There is **no fixed seating arrangement**. On most of the occasions, open-air class, under the trees (Amrokunja or the mango orchard) are conducted.

According to Tagore, God reveals himself through nature more effectively than through manmade institutions. Hence,the education of the child should be under **natural surroundings** so that he develops love for all things around him.

5. Curriculum

In terms of curriculum, Rabindranath Tagore advocated a different emphasis in teaching. Rather than studying national cultures for the wars won and cultural dominance imposed, he advocated a teaching system that analyzed history and culture for the progress that had been made in **breaking down social and religious barriers.** Such an approach emphasized the innovations that had been made in **integrating individuals of diverse backgrounds** into a larger framework, and in devising the economic policies which emphasized social justice and narrowed the gap between rich and poor. **Art** would be studied for its role in furthering the aesthetic imagination and expressing universal themes.

According to Tagore **language of medium** should be **mother tongue** and thus Bangla is used as medium of instruction. **Students from different countries** were observed in the school, for example a Japanese student was also observed speaking Bangla fluently.

In light with Tagore's philosophy; school gives **equal weightage for academics and co-scholastic activities.** Core subjects like Bengali, English, Hindi and Sanskrit, arithmetic, history, geography and scienceetc. are studies in school. **Co-scholastic activities** like sports, music, dance, drawing, vocational training (carpentry, weaving, needle work etc.) Co-curricular activities are compulsory up to class 8.

Textbooks

There are no prescribed textbooks. Teaching is not restricted to the chapters in the prescribed textbooks. Learning happens beyond textbooks, from nature through observation and through sense training. Teachers are given autonomy in their choice of content to be taught.

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6. Assessment

There is **no formal examination** at the end of terms till grade 8. In the high school, assessments are conducted as per CBSE guidelines. In grade 9 there is practice test and students of grade 10 appear for their Board Exams.

One can perceive a**ssessment seamlessly integrated with the teaching learning process.** Continuous assessment of students is done term-wise which is based on four to five assignments. Grades are given to students based on their **progress (process) and not on the final product alone.** Teachers observe children's work over a period of time to see any gradual change in their learning.

Children are observed not only in **cognitive areas** but equal importance is given on the **non-cognitive skills and knowledge**. Students are assessed based on the projects, art work, worksheets, group assignments etc. **Variety of assessment methods** show how their learning translates into real life. They are able to make **connections with various disciplines**. Self-learning, peer learning was observed.

Students share very open, informal and cordial relation with the Principal as well as the teachers.

Even though the teachers **do not maintain daily written records of the progress** made by the children (anecdotal/ portfolios), they can at any time give a feedback about any child in his/her class.

7. Admission Process

- Follows a policy of inclusiveness.

- No discrimination made on the children's social or economic background.

- Children seeking admission to the school goes through a selection process

- Till class five, selection is based on different activities which checks on their sensory skill, motor skill, memory, recognition etc.

- From class six and above, the children are selected on the basis of their performance in written test and interview

8. How has the visit informed our understanding?

The following points reflect our understanding from the visit in the light of **non-cognitive/ formative assessments-**

For Holistic development of education:

- Equal weightage given to both curricular and co-curricular activities; Each has a place in the time-table

- No distinction made between scholastic and co-scholastic attributes.

- Emphasis given to both academics and co-curricular activities

Enabling Condition:

Based on the vision and philosophy of Tagore – 'development of mind, body and soul'

Place of fine arts (dance, drama, music, poetry etc: *Tagore attached great importance to the fine arts in his educational curriculum. To him, game, dance, music, drama, painting etc. should form a part of educational process. Students should take active part in these finer aspects of human life for these are very essential to enrich soul.*

Continuous: Assessment is done in a continuum mode.

- no exam and children learn at their own pace

Enabling Condition:

Tagore believed in stress free education. he gave free choice to students to develop their interest in any field they like. To him, education should be after the heart of a man

Teacher Empowerment: teachers given autonomy in terms of content selection and assessment

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GLOSSARY

The aim of glossary is to build technical understanding of some frequently used words and deconstruct few technical terms from psychological parlance/ non-cognitive domain for clear understanding of the readers.

In the document, the general usage of the word is supported by two dictionary meanings of that term. This is to convey clarity to the user about the minute or subtle differences, or sometimes vast differences in the meanings and usage of the terms that are commonly understood or misunderstood. A working definition of the terms used in the document is also given along with the dictionary definitions.

1. Adaptation:

Dictionary.com: to adjust (someone or something, especially oneself) to different conditions, a new environment, etc.

Oxford: a general term for any process whereby behaviour or subjective experience alters to fit in with a changed environment or circumstances or in response to social pressure.

Working Definition: Adaptation refers to the ability to change or modify one's behaviour, thinking and other psychological processes to suit the change in the environment or social conditions.

2. Adjustment:

Changes one has to make to suit other people or things.

Dictionay.com: a process of modifying, adapting, or altering individual or collective patterns of behaviour so as to bring them into conformity with other such patterns, as with those provided by a cultural environment.

Oxford: behavioural adaptation to a particular environment or a set of circumstances.

The conscious process of bringing about changes in cognitive, affective, behavioural, social responses due to external or internal demands on an individual.

Ex: Generally, doctors respond differently to death and illness with respect to their patients, this is due to cognitive, emotional adjustments.

3. Aesthetic appreciation:

Wiki: Aesthetics is a branch of philosophy dealing with the nature of beauty, art, and taste, and with the creation and appreciation of beauty. It is more scientifically defined as the study of sensory or sensori-emotional values, sometimes called judgments of sentiment and taste. More broadly, scholars in the field define aesthetics as "critical reflection on art, culture and nature.

The cumulative knowledge from personal experiences, social and cultural contexts, and education that enables an individual to evaluate an object/event by reflecting on its beauty and personal significance.

4. Affective:

Dictionary.com: of, caused by, or expressing emotion or feeling; emotional.

Merriam-Webster: relating to, arising from, or influencing feelings or emotions.

That aspect of the individual which involves the emotional component to respond to stimuli.

5. Aggression:

Commonly, aggression is understood as an individual's anger or frustration due to people or circumstances. In aggression, the person's behaviour invariably hurts others verbally, physically or emotionally. Aggression is also used to describe extremely focused and uncompromising manner of doing things or getting things done by others.

Merriam-Webster: a forceful action or procedure (as an unprovoked attack) especially when intended to dominate or master; hostile, injurious, or destructive behavior or outlook especially when caused by frustration.

Oxford: feelings of anger or antipathy resulting in hostile or violent behaviour; readiness to attack or confront.

Aggression is either a feeling or an action to overpower the situation or people or views of the people in the situation. What distinguishes aggression from simple hostile or destructive behaviour is that though it seems unprovoked by outside it has its origin in the person's need to dominate the situation - therefore, internal.

Ex: Having stuck in a traffic jam, a driver starts verbally abusing other people on the road to make way.

6. Antipathy:

Collins: a feeling of intense aversion, dislike, or hostility.

A feeling of dislike or hostility towards specific others or generally, that affects an individual's social interactions negatively.

7. Anxiety:

A feeling of nervousness; usually understood as worry related to an impending event.

Oxford: A state of uneasiness, accompanied by a dysphoria and somatic signs and symptoms of tension, focused on apprehension of possible failure.

Merriam-Webster: an abnormal and overwhelming sense of apprehension and fear often marked by physiological signs (as sweating, tension, and increased pulse), by doubt concerning the reality and nature of the threat, and by self-doubt about one's capacity to cope with it.

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A mental state of being uncomfortable with a future event - mostly when in doubt about one's own ability to be able to cope with it. In extreme situations, or reactions to real or imaginary impending unfavourable event, accompanied by physiological symptoms of sweaty palms, accelerated heart rate, etc.

Ex: A state of unease before an important exam or an important result.

8. Aptitude:

Ability of an individual to excel in a certain area; generally used as an indicator of special talent that an individual has.

Merriam-Webster: A natural ability, or capacity for learning.

Oxford: Suitability, natural ability, or capacity to learn; especially potential rather than existing capacity to perform some function, whether physical, mental, or a combination of the two, given the necessary education or training.

An individual's potential in a certain academic or non-academic area. It is a natural ability to learn physical or mental task, or both, given some training. It is not a skill that can be performed.

Ex: An individual might have a high aptitude in language and low aptitude in sports but May or may not reflect in his language performance or sports activity without some training.

9. Assessment:

Tests, exams, measuring tentatively, as opposed to measuring exactly.

The process of test-taking, interpretation of the test-scores, and the use of this score as a reference point for another purpose. It also integrates examiner's findings during the course of testing.

The process of testing a given skill/process with the view to use it to identify Strengths and weaknesses and specific requirements or areas of development. The exactness of measurement is not compromised; rather various methods are used to arrive at a conclusion about gaps in potential, functioning and achievement, in people, organisations, and systems. In assessment, the emphasis is more on how the individual reaches the score rather than the score itself. In assessment, the skill, experience, and knowledge of the assessor are also linked to the value of the test. Assessment is a starting point to become more cognizant of areas that are, intentionally or unintentionally, ignored and therefore need systematic input to address those needs.

10. Attitude:

An individual's over-arching view of self, others, or systems - usually in extremes.

Oxford: An enduring pattern of evaluative responses towards a person, object, or issue. A consistent pattern of affective, cognitive, and conative responses.

Merriam-Webster: a mental position with regard to a fact or state. A predisposition to respond to certain people, situation, or self in a particular way.

An individual's pattern of evaluating and responding to people, situation, objects, or self. This evaluative-pattern of responses develops over a period of time due to various socio-cultural influences.

Ex: People in India have a relatively negative attitude towards receiving psychological services due to the stigma attached to psychological illness.

11. Behaviour:

Oxford: the overt bodily movements and the internal glandular and other physiological processes, constituting the sum total of organism's physical responses to its environment.

Any overt physical activity, or explicit physiological process that can be observed from the outside, is called behavior.

Ex: We can directly observe the physical activity of the individual - talking, reading, laughing etc., and can indirectly observe a person's glandular activity (like in nervousness) from sweating, increased heart-rate etc.

12. Competence:

The individual's ability and skill.

Merriam-Webster: a sufficiency of means for the necessities and conveniences of life.

Oxford: the ability to do something successfully or efficiently

an individual's proficiency in doing a task, his/her approach to a problem or the ability to equip oneself sufficiently to complete a task.

13. Cognitive/Scholastic:

Commonly understood as related to 'higher order' intellectual abilities such as thinking, reasoning, conceptualization, etc. The most commonly used indicator of cognitive abilities is the result on a class-exam.

Oxford: Related to the mental activities involved in acquiring and processing information.

Merriam-Webster : of, relating to, being, or involving conscious intellectual activity (as thinking, reasoning, or remembering)

It is related to processes of thinking, reasoning. Processes that are usually utilised in academic performance (but not solely) and therefore can be gauged by recall, ability to process information constructively and to reach logical conclusions. It encompasses processes such as: perception, memory, retrieval of information, processing of information laterally- for future use, and categorisation, and therefore are also utilised in daily life situations wherever these activities are required (outside of academic performance). It can be assessed and quantified using a standardized IQ test.

14. Co-Scholastic/Non-Cognitive:

Social and emotional constitution of an individual. It refers to areas related to personality traits -essentially, not related to 'intelligence' (academic)

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Social, emotional responses of an individual, involuntary in nature, influenced by socio-cultural factors; essentially, everything other than intellectual abilities/skills.

Factors that influence the emotional and social aspects of the individual, largely influenced by socio-cultural factors, appear in continuum, difficult to quantify, varies in different contexts (fluid). These are affective and social skills that an individual needs and uses in a personal or social situation. 'Non cognitive domain' is an umbrella term for all the variables that contribute to these skills.

15. Conative:

Oxford: The psychological processes involved in purposeful action.

Dictionary.com: the element in psychological processes that tends towards activity or change and appears as desire, volition, and striving

In psychology, the purposeful overt expression/behaviour guided by an individual's thoughts and emotions.

16. Creativity:

The ability to make new things, or to look at things from a new perspective.

Dictionary.com: the ability to transcend traditional ideas, rules, patterns, relationships, or the like, and to create meaningful new ideas, forms, methods, interpretations, etc.

The ability to produce work that is original or give new perspective to existing work that is useful in some way.

17. Intelligence:

Commonly used to comment on an individual's ability to apply knowledge of facts (mostly from school-education) to deal with a particular problem or situation.

Merriam-Webster: the ability to learn or understand or to deal with new or trying

Wechsler: The aggregate or global capacities of an individual to act purposefully, think rationally, and deal effectively with his environment.

18. Interest:

An individual's inclination, or liking; A person's general liking towards objects, activities, topics, situations etc.

Oxford: the feeling of wanting to know or learn about something or someone.

Merriam Webster: feeling that accompanies or causes special attention to an object or class of objects.

An individual's curiosity to gather information or be able to physically, mentally, or behaviourally engage with an object, a concept, an area, or people. Interest is built upon information available to an individual. Therefore, it is important to keep in mind that a person expresses interest in things/activities that he/she is familiar with, and might change

interest completely or shift preferences based on exposure to other information.

Ex: A person interested in classical music, or sports activities, or war stories, etc. A child interested in collecting information and knowledge about cars could shift interest to collecting information about soccer once he learns the game and about the players

19. Learning Disability:

Oxford: A generic name for disorders characterized by substantial deficits in scholastic or academic skills, including 'reading disorder', 'mathematic disorder', and disorder of 'written expression'.

A general difficulty in the abilities to process information in a given area (reading, math, language, & writing,), given average or above average intelligence (IQ), and absence of any related physical disability (vision, hearing, speech production, etc.)

20. Metacognition- habits of mind:

Metacognition, or thinking about thinking, is our ability to know what we know and what we don't know. The major components of metacognition are developing a plan of action, maintaining that plan in mind over a period of time, and then reflecting on and evaluating the plan upon its completion.

21. Personality:

The overall impression that an individual makes with his/her appearance, attire, social conduct and communication.

Oxford: the combination of characteristics or qualities that form an individual's distinctive character.

Merriam-Webster: the complex of characteristics that distinguishes an individual or a nation or group; especially: the totality of an individual's behavioural and emotional characteristics.

Personality is the set of enduring traits of an individual, contributed both by hereditary and environment. It is a distinctive way in which an individual responds cognitively, emotionally, and behaviourally as an individual and as a member of a social group.

22. Persistence:

The action of being committed, even after failures.

Oxford: continuing firmly or obstinately in an opinion or course of action in spite of difficulty or opposition.

Merriam-Webster: existing for a long or longer than usual time or continuously, as continuing to exist despite interference or treatment

Being steadfast both mentally and physically even in the face of difficulty. Unwavering dedication/commitment to a task or cause, which involves challenge.

Ex: The organisation has been making persistent attempts to bring awareness among villagers regarding gender bias against women.

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23.Prejudice:

An attitude or evaluation, usually negative, toward a group of people defined by their racial, ethnic, or religious heritage or by their gender, occupation, sexual orientation, level of education, place of residence, or membership in a particular group.

Oxford: A preconceived opinion or judgment, formed without adequate consideration of relevant evidence, especially an unfavourablejudgement based on group membership.

A positive or negative opinion formed, about a person or a thing, without evidence or experience in reality- usually related to belonging to a certain group (social, economic, religious, gender, etc.)

24.Self -esteem:

Commonly understood as the confidence exhibited by a person.An individual's dignity or self-respect; inner strength of an individual, often understood as a positive quality that helps him/her to go about confidently.

Oxford: One's attitude towards oneself or one's opinion or evaluation of oneself, which may be positive, neutral, or negative

An individual's perception and evaluation of oneself - usually such evaluation includes all dimensions of personality, attitudes, achievement, etc.; this could be positive, neutral or negative, and has significant impact on a person's physical, emotional, responses to others

Ex: A person could have low self-esteem because he/she evaluates his/her appearance negatively and therefore refrains from face-to face interactions with others.

25.Sensitive:

A person, who is extremely emotional, cries and gets hurt easily. Such people, are approached with caution by family and friends due to their over-reaction to relatively insignificant situations.

Oxford: having or displaying a quick and delicate appreciation of others' feelings.

Merriam-Webster: highly responsive or susceptible: easily hurt or damaged; especially: easily hurt emotionally or delicately aware of the attitudes and feelings of others.

An individual, who understands the nuances of a situation and that of different individuals/groups, and respond to these accordingly. A person, who is aware of his /her surroundings and responds to situations, objects, and people, in an appropriate manner.

26.Self-concept:

Commonly understood as the self-respect of an individual, and the awareness of one's strengths and weaknesses.

Oxford: an idea of the self-constructed from the beliefs one holds about oneself and the responses of others.

Wikipedia: It is a multi-dimensional construct that refers to an individual's perception of

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"self" in relation to any number of characteristics, such as academics and nonacademics, gender roles and sexuality, racial identity, and many others.

An individual's notion of his/her own self, gauged by assessments done/judgements given by significant others. This understanding is based on appearance and performance/achievements and often in comparison to others.

Ex: A person forms a certain self - concept based on his/her mother's or teachers' opinion of him/her

27. Skills:

Mastery in performing or execution of certain tasks. Usually thought of as acquired through training

Expertise in performing a task from one's knowledge or practise.

Merriam-Webster: a learned power of doing something competently : a developed aptitude or ability <language skills>

Ability to carry out coordinated responses that are required for performing a task. Skill is a combination of ability and knowledge, and different skills require different abilities.

Ex: Motor skills require physical fitness. Driving skills require motor ability, reaction time, thinking ability. Communication skills - language ability, cognizance of conversation rules, etc.

28. Understanding:

Dictionary.com: knowledge of or familiarity with a particular thing; skill in dealing with or handling something

29. Withdrawn:

Dictionary.com: unusually reserved, introverted, or shy.

An individual, who avoids active participation in appropriate & expected activities - stemming from either of interest in the activity or lack of confidence in self to participate

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In a poem that expresses Tagore's goals for international education, he writes:

*Where the mind is without fear
and the head is held high,
Where knowledge is free;
Where the world has not been broken
up into fragments by narrow domestic
walls;
Where words come out from the
depth of truth;
Where tireless striving
stretches its arms towards
perfection;
Where the clear stream of reason
has not lost its way into the
dreary desert sand of dead habit;
Where the mind is led forward
by thee into ever-widening
thought and action—
into that heaven of freedom,
my Father,
Let my country awake.*