Wipro Applying Thought in Schools

Our understanding of good education

Wipro Applying Thought In Schools is Wipro's community initiative to help improve the quality of education in India. This document articulates our understanding of good education.

The ideas here are not new. They are merely a re -presentation of the views of thinkers such as Dewey, Gandhi and Krishnamurthi, of educational scientists such as Piaget and Vygotsky; and of the ideas expressed in Indian documents such as the Kothari commission and the National Curriculum Framework 2005. Further it draws on the vision of an ideal citizen as articulated in the preamble of the Indian constitution.

Aim of education

Education is an organized system that facilitates learning. It stimulates t he child's curiosity and helps her develop into a creative, critical and sensitive human being. Here each learner
Ø   learns the process of becoming what one can be and wants to be, and
Ø   understands one's role in society and contributes to its progress

Scope

This document restricts itself to initial 10 -12 years of schooling; it does not extend to higher education.

Vision of an ideal individual

The aim of education leads to a vision of an ideal individual the system should help create. Such individual has hon ed his capability to evaluate and create for continuous discovery of self and the world. In the process of discovery, the person imbibes certain individual social and human qualities.

Capability

Evaluate – True evaluation happens when an issue or an eve nt is approached from multiple perspectives – scientific, artistic, mathematical, geographical, historical, social and philosophical. This and the capacity to be involved and emotional, yet detached and empathetic, will build objectivity and completeness o f thought and action in evaluation.

Create – Creation is brining into existence that which is valued by the individual and society. The teaching of a child, the writing of a book, the building of a brand, the production of soap, the construction of a dam , each of these acts, if progressive, is creation.

Qualities

Individual values – Integrity, courage, perseverance, spirit of learning, happiness
Social values – Democracy, Freedom, Secularism, acceptance of diversity, spirit of
inquiry, reform and enterprise
Human values – Compassion, preservation of the environment, strive for excellence .

Process of learning

The mind is a combination of data, knowledge and processes. Data represents the
continuous stream of unfiltered sensory experiences that the learner receives. Knowledge
is a web of cause-effect relationships built on data. Processes determine how learning
happens – that is, how data is interpreted and knowledge is built. Processes evolve
depending on how successful they are in interpreting fres h experiences within the
framework of past knowledge.

Implication

The implication for education is that experiences can be planned for learning to
happen. The quality of these experiences is grounded in the status of the learner's mind
and the desired learning. Desired learning derives from the vision of an ideal individual.

Therefore, the role of the education system is to devise a framework for desired learning.
The role of the school is to provide and environment where the right experiences can be
created. The role of a teacher is to create the right experiences and to guide the learner
in building knowledge.

Devising a framework for desired learning

As noted, desired learning derives from the vision of an ideal individual. However, this
does not indicate strictly defined content. The larger system, such as the boards, should
limit itself to defining a framework for learning. A framework for learning should cover:

Inter-related disciplines – Nature is inherently whole and can not be broken down in to
fundamental building blocks. Since knowledge is mental representation of nature, it too
can not be boxed into subjects, modules and chapters. Hence, a framework of broad
intertwined disciplines that includes sciences, social sciences and mathematics nee ds to
be put together. Language is inherent in every discipline.

Physical skills – Covers physical development and vocational skills

Intellectual skills – Covers competencies such as creative -thinking, critical-thinking and
abilities such as risk-taking, risk-minimizing.

Philosophy – Covers value systems, beliefs and attitude.

The framework is restricted to broadly defining alternatives. The local system – learner,
parent, teacher, school, community – then contextualises this to the learner's inclina tion
and ability. Within this guiding structure, the learner decides his/her pace of learning.

Providing a learning environment

The school is a location where the right experiences for learning are created. This consists of:

Hard environment – this covers the classroom, playgrounds, library, laboratory, learning tools, toilets, cafeteria and all other physical infrastructures.

Soft environment – this represents the value system of the school. Caring for children and feeling responsible for the holistic progress of every child forms the basis for every decision. Such schools invest in teacher development, better assessment systems, community participation, infrastructure, and in culture built on the imperative of the learner.

Together the hard and soft environments provide a non-intimidating and interesting space in which the child learns. Schools need to proactively identify and eradicate every element of threat – physical, mental and emotional – that stifles learning and growth. Again, the right learning environment is contextual to the learner and the community. For instance, a blind child needs non-visual learning tools; hunger is a physical threat detrimental to learning in poor communities. It follows that the local community has a responsibility in creating such an environment within and outside the school.

Creating the right experience

The process of learning indicates that children learn all the time and everywhere. The learner's mental status determines what learning he/she is ready for, and the learner's background determines his/her learning styles. To create the right experiences for desired learning, the teacher needs to follow the following process:

Understand the learner's mental status: New knowledge is built on old knowledge. The teacher cannot build knowledge of integers if the learner has not learnt the concept of quantity. Hence the learning process begins by understanding the learner's current base of knowledge – this is assessment. Mere memory is not an indicator of knowledge. Assessment tools need to measure whether the learner has synthesized new knowledge with his existing mental construct and is now able to analyze and evaluate this knowledge for further application.

Understand the learner's context: The learner's context refers to the mental processes that decide how the learner interprets data and builds knowledge. This determines how the learner responds to different learning styles – for instance some children learn best when doing things with their own bodies, others learn better in peer groups. The teacher also needs to understand the learner's background – history, family situation etc. This will enable the teacher to comprehend the learner better and will assist in defining desired learning.

Create the right experience: The right experience draws the learner towards desired learning through a process of enquiry and discovery. The teachers and learners are equal partners in creating the right experience. Additionally the teacher assists in drawing out the expected learning by guiding the learner in the desired direction.

The education system facilitates desired learning, but the final act of learning – the building of knowledge and the evolution of the background processes – rests with the learner.

Contrast with the current system

The alternative paradigm charted here represents the fundamental conflict with the ideology and working of the current system. A brief contrast is presented here to demonstrate this point:

	Alternative paradigm	Current system
• Aim of education	• Facilitates learning to realize the individual's potential and inclination, and for societal progress	• From its day-to-day working, it is apparent that the implemented ideology is restricted to maximising economic opportunity
• Process of learning	• Knowledge is built through an evolving process of interpreting experience	• Knowledge is poured into the empty mind of the learner • Memorising is learning
• Desired learning	• Desired learning derives from the aim of education and the vision of an ideal individual • It covers inter-related disciplines, physical and intellectual skills and philosophy • It is contextualized to the learner	• Desired learning does not derive from the aims of education • It is restricted to rigidly defined subject-wise context that is disconnected and is not contextualized to the learner • It does not extend to physical skills, intellectual skills and philosophy.
• Learning environment	• Environment is designed to create the right learning process • It is contextual to the needs of the learner • It is a caring eco-system that feels responsible for the child's progress. • It systematically eliminates sources of intimidation and regimentation that stifles learning.	• Environment is highly regimented, homogenous and intimidating • Physical, mental and emotional threat is used for conformance. • Environment stifles learning. • It does not invest in teacher development, community participation and culture of care

	• It invests in teacher development, community participation and culture.	
• Learning experience	• The teacher invests her resources in understanding the learner (history, home environment, mental status and preferred learning styles) before customizing multiple experiences that build desired learning. • The teacher sees the entire learning process as her responsibility	• No concept of right learning experience exists. The engagement model is not flexible and is not attuned to different learning styles. • Assessment is used to judge and label the learner. • The learning experience is removed from the learner's context. • Teacher does not see learning as his/her responsibility. Role is limited to covering syllabus through lecture.
• Learner	• Learns to evaluate and create continuous discovery of self and the world. • Imbibes qualities such as integrity, courage, spirit of learning, democracy, freedom, acceptance of diversity, spirit of inquiry, reform and enterprise, compassion. • The learner has learnt to unleash the individual spirit.	• Has a memory of disconnected data. • Has not learnt to build knowledge. Hence no real learning has happened. • Does not know how to evaluate or create. Does not know how to think, discover and learn. • Imbibes qualities such as obedience and rejection of diversity. • Needs guidance as education has disconnected him/her with life and no life skill has been imparted. • To facilitate homogeneity, all trace of individual spirit has been systematically removed.