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Activity Based Learning across the Globe after the Industrial Revolution

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*"I hear I forget
I see I remember
I do I understand"- Confucius*

Abstract

Activity based learning is one of the most fruitful methodologies among children. It is wide and diversified in nature. The method has a root in the period of Socrates and Humbolt. It was shaped and popularized in the hands of so many philosophers throughout the world like Froebel, Dewey, Montessori, Gandhiji and Rabindranath Tagore after industrial revolution. Psychological basis of the activity based learning depends on the constructivism and social constructiveness. Meaningful engagement of the students in learning through activity is one of the major direction of Activity based Learning. Activity Based Learning allows different types of activities in different subjects as the nature and types of learning differ according to subjects. It is diversified in nature. There are different types of comparisons among philosophers in respect to age division, design of activity and outcome of activity. In this paper regional comparison is made of different philosophers. Their ascent, descent together with relevance of recommended pedagogy till recent times is discussed.

Keywords : *Activity Based Learning, Pluralistic, Constructivism, Types of Activity, Pedagogy.*

Introduction

Activity Based Learning is mainly based on the term 'Activity', which has pluralistic connotations. Generally, activity may be defined as the task performed in pair or in group by an individual in conscious or unconscious manner. The famous psychologist Woodworth (1948) considered any manifestation of life as activity (Woodworth, 1948, cited in S. K. Mangal, 2002, p. 3). Our behaviour is the collection of connotative, cognitive and affective activities of life (S. K. Mangal, 2002, p. 3). Activity is practical or reasoning task in which pupils are engaged one by one, or with more pupils to enhance and enrich learning. While tasks are associated with evaluating individual pupil's performance, activity involves two or more pupil working cooperatively or collaboratively to achieve a common goal (Hayes, 2006, p.6). Prof J. C. Richards who is a famous professor of applied linguistics in modern times. He said that the term activity is more general than task and exercise. His definition is as followed, "the term activity is more general and refers to any kind of purposeful classroom procedure that involves learners doing something that relates to the goals of the course. For example singing a

song, playing a game, taking part in a debate, having a group discussion, are all different kinds of teaching activities.” (<http://www.professorjackrichards.com/difference-task-exercise-activity/>, retrieved on 20.11.2023).

The concept of Learning from simple to complex involves a process. It is defined as, “Learning is the process of acquiring new or modifying existing knowledge, behaviours, skills, values, or preferences. Evidence that learning has occurred may be seen in changes in behaviour from simple to complex, from moving a finger to skill in synthesizing information or a change in attitude” (Wikipedia, based on Gross, 2010). Analyzing various conceptual assumptions of learning, Churchill (2003) sums up ‘learning is an activity which creates unity of learning, doing and thinking.’ As noted in Jonassen and Churchill (2003) (cited in Churchill, 2003, p. 1) learning became meaningful when it engages in activity.

If we define the coined term ‘Activity Based Learning’, we can simply say that it is a learning, which is based on organized activity. It is one of the most effective methodologies of education in modern perspective (Hariharan, 2011). Its core premises include the requirement that learning should be based on doing some hands on experiments and activities. The idea of activity based learning is rooted in the common notion that children are active learners rather than passive recipients of information. If a child is provided with the opportunity to explore learning by themselves and is provided with an optimum learning environment then the learning becomes joyful and long-lasting.

Activity Based Learning, i.e., one of the most effective teaching styles of education, is generated since the period of Socrates and Humboldt (Stößlein, 2009, p. 4) and has developed in the hands of many philosophers and has shaped itself as well. Though enlarged but the concept of active learning is associated with activity based learning (Fallon *et al.*, 2012). The concept of ‘Active Learning’ as described by Prince (2004, p. 1) as a learning process in which students are engaged in performing meaningful activities. That way it differs from the traditional concept of classroom where students receive information passively. In activity based classroom students actively participate in the learning process rather than sit as passive listener. Activity Based Learning differs in one basic point from the traditional leaning i.e., students’ engagement and their role in the learning process. A fearless, trauma free environment always provides the best learning outcomes which lacks in traditional classroom. In Activity Based Learning students are actively involved in doing or in seeing something done. Churchill, (2003, p. 1) mentions, “The goal of activity based learning is for the learners to construct mental models that allow for ‘higher order’ performance such as applied problem solving and transfer of information and skills.”

The basic idea of Activity Based Learning finds its antecedents in the common notion that learning can be best when it is initiated by surrounding environment and motivated by providing optimum opportunities to learn. Centre for Education Innovations (2015) has defined Activity Based Learning as follows, “is a methodology where children of different ages are grouped together in one class and learn at their own pace through teacher facilitated exercises.” Activity Based Learning has been termed and used in many ways in a number of research works. It is an approach of education which have constructive outlook of the students’ active engagement in the learning process through

the performance of some purposeful, meaningful and goal-oriented activities under the guidance of teachers.

Philosophical Basis of Activity Based Learning

The philosophical premises of Activity Based Learning in post industrial revolution can be traced back to the occidental educational thoughts of Friedrich August Froebel (1782-1852), John Dewey (1859-1952) and Madam Maria Montessori (1870-1952). The oriental thoughts are generated by Rabindranath Tagore (1861-1941) and Mohondas Karamchand Gandhi (1869-1948).

One of the chief characteristics of Froebel's method was 'self-activity'. His activities were progressive. Froebel meant that the child should not perform the activity which is suggested by his/her parents or teacher. The child should follow his own impulses and decisions. Froebel said that the divine spirit reveals itself in the spontaneous activities. Self-activity is connected with Froebel's principles of creativeness, by which he meant that creativeness of new forms and combinations are made and expression is given to the new images and ideas. Such gifts, as the educational toys like ball, cube sphere and cylinder and related occupations were meant to stimulate activity. Froebel was the first philosopher to take the formative and creative instincts of children into account for education. The spirit of activity runs into the project method and into the whole range of experimental and creative activities of the modern activities (Taneja and Taneja, 2006, p. 32-48)

The pragmatic philosopher John Dewey considered his experimental school to be an activity school. Dewey considered pupil's activity, whether spontaneous or directed, is the best method of learning. The notion of Dewey was that pupils learn by doing and reflecting on the activities. The activities, suggested by Dewey should be carried out in natural problem solving situation. The learning should be active and co-operative, out of which students gain experience of life and society. Dewey inherited the Froebelian theory of self-activity and Herbertian theory of perception. Dewey prefers the curious mind of the children that enriches problem solving method. Dewey's idea of mental activity enriched intelligence and creative skill (Aslam *et al.*, 2015, p. 2-4).

Madam Maria Montessori, the famous Italian doctor developed the Montessori Method in the form of sense training. Her method allows the children to perform activity freely at their suitable environment. Children should choose activity from the prescribed list and follow constructive approach. Teacher is observer and facilitates them in doing activity. Materials used in the mixed aged classroom are made of wood or plastic. Montessori developed pedagogical methods and materials identifying natural tendencies of children. Lillard (2012, 2017) proved that Montessori Method is effective for different areas of learning like language and mathematics.

Rabindranath Tagore was the chief exponent of activity with nature in the Oriental perspective. According to Tagore, activities are age oriented, natural, spontaneous and creative. Activities should develop self-discipline among children. School plays an important role in developing activity among children. Tagore criticized the traditional concept of schooling. Tagore gave importance on the agricultural activity in which children should spend their time after school. They should learn under the tree and in the evening learn from sky. Up to the age of seven activities should be in relation to soil, tree, water, air and light etc. They should take fruits from trees, play in dust. Learners should have an intimate relationship with nature (Tagore, 2010, p. 245-247).

The educational method practiced by M. K. Gandhi was similar to Dewey, who emphasized activities and occupations of real life. His activity was child-centric, purposeful, productive, remunerative and educative. He believed in the harmonious development of body, mind and spirit and advocated that mind should be trained through hands (Taneja and Taneja, 2006, p. 97-124). He believed in the principles of learning by doing. “Education must revolve round vocational and manual activity at the same time; all syllabuses should be woven around vocational training” (Seetharamu, 2010, p. 172-189). Gandhiji believed in the casteless, classless and non-violent society. All kinds of physical labour are honourable according to him. He disliked hierarchy based on class or caste. The craft or productive work should be chosen from the human activities and interests and educative opportunities. Objectives of this educational scheme is “not primarily the production of craftsmen, able to practice some craft mechanically, but rather the exploitation for educative purposes of the resources implicit in craft work” (Seetharamu, 2010). Activities are the combination of intellectual work and economic self-sufficiency. The scheme also mentioned the proper training of the teachers to practice it effectively. The scheme also admits the limitations of the activity. It points that all subjects cannot be taught through craft.

Psychological Bases of Activity Based Learning

Schools of learning were mainly dominated by schools of Behaviourisms, schools of Cognitivism and the schools of Constructivism. Activity Based Learning theory is generated from cognitive learning theory but considered as a constructivist learning theory (Hein, 1991). Activity Based Learning in India simultaneously with ‘*Bodh Shiksha Samiti*’ schools in India and ‘Forest School’ in Denmark came out of the learning theory of constructivism. Regarding teaching-learning strategy, Activity Based Learning bears some pedagogical principles of social constructivism. It is child centred learning which sometimes interchangeably used as child centred education. ‘Child centred’ has been developed with a series of educationists like Locke, Rousseau, Froebel and Dewey (Westbrook *et al.*, 2013, p. 9-12). Children’s active engagement in the learning process helps to explore their world as creator of their own knowledge and teacher is supposed to play the role of facilitator and sometimes the co-creator of their knowledge (NCF, 2005, Teaching of Indian Languages, p. 8).

It is clear and obvious that Activity Based Learning belongs to constructivism as psychological school of learning and maintains the teaching-learning and evaluative principles of constructivism.

Types of Activities for Students in Activity Based Learning

Activity Based Learning allows different types of activities in different subjects since the nature and types of learning differ according to subjects. Following points show that it is diversified in nature.

- Some of the activities related to various subjects, like sequencing, sorting, measuring, predicting, testing, role playing, comparing, observing, dancing, singing, mixing, joining, painting, coloring, playing games, storytelling, paper craft, drawing, collage, outdoor games etc.

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- Sometimes activities can be differentiated according to the procedure of lesson like Preliminary activity, Reinforcement activity, Practice activity, Evaluative activity and Remedial activity (Sumanjari, 2012, p. 469).
- Froebel's self-activity in the forms of 'gifts' and 'occupations' stimulate activities among children. Activities, namely, holding, dropping, rolling, swinging, hiding and revealing the balls, lead to differentiating among shapes like sphere, cube and cylinder. Assembling or reassembling of shapes, modeling, drawing, sewing, and colouring were considered as gifts and occupations, which enable the child to act out his/her observation in adult life. These activities also generate creative power among them (Baidya *et al.*, 2015, p. 136).
- Activities of Montessori involve exploration, manipulation, ordering, abstraction, repetition and communication, which aim to develop imagination, reasoning and creativity among children.
- Dewey, one of the chief exponents of activity of modern times, also believed in various types of in-house, outreach and mental activities in education.
- Activities may be classified according to the purposes of education as well as subjects, gradation of the students, need of the students and many more. Pupils usually perform activities like cooking, sewing, weaving, gardening, metalwork and woodwork etc.
- Sometimes students are considered as members of a family and school facilitate self-activity individually or with joint allocation in kitchen, garden, studio, laboratory etc. Students can integrate their activities with subjects like literature, art, history, geography, science etc. Teachers always guide the exciting and challenging activities of the students.
- Tagore used to prescribe activities in free preferences of the children. Teachers of Santiniketan were advised accordingly. Activities should have relationship with the nature and culture of the children.
- Gandhian activities were correlated and interdisciplinary in nature. Spinning, weaving, physical activities, crafting, ginning, carding, winding, reeling, twisting, mulching, watering, manuring, weeding and harvesting are some of the examples of activities suggested. Gandhiji also laid emphasis on maintenance of relationship between activity and societal environment.

Gandhiji and Froebel emphasized on spiritual development together with performance of various types of activities. Hence it appears that there is a range in various types of activities (Taneja and Taneja, 2006).

Time management and Teacher's efficiency are important considerations for learning through activity. Activity is free from all sorts of physical punishment and always joyous in nature.

The Unity and the Diversities in the Philosophies of the Proponents of Activity Based Learning

If we look into the geographical mapping of the activity, Froebel and Montessori are from European country. Gandhiji and Tagore came from Asia and Dewey was an American.

The unity and diversity can be understood in different dimensions related to activity based learning.

Age division of learners made by different philosophers:

Philosophers	Age division
Friedrich August Froebel	Froebel's activity is for infant to five or six years.
John Dewey	John Dewey encompasses their activity for elementary level and subsequent higher level.
Madam Maria Montessori	Montessori activities are also for the one to four or five years old children.
Rabindranath Tagore	Rabindranath Tagore also prefers activity for preparatory level and elementary level of schooling.
Mohondas Karamchand Gandhi	Gandhiji prescribed activity for elementary level and subsequent higher level.

Similarities in the methods of philosophers:

All of them design activities for foundational stages of life.

Differences in the methods of philosophers:

There is a major difference among philosophers regarding implementation of activity according to age group. Froebel and Montessori chose for elementary level, while Dewey, Tagore and Gandhiji for elementary and school level also.

Activity types of different philosophers:

Philosophers	Activity Types
Friedrich August Froebel	'Gifts' were used to learn how to distinguish, compare and contrast and 'Occupations' were mainly to do all activities.
John Dewey	John Dewey's activity school gives importance on the natural problem solving situation.
Madam Maria Montessori	Montessori gave importance on daily life activities, sense training and Use of didactic apparatus.
Rabindranath Tagore	Rabindranath Tagore gave importance to the activities that have spontaneous relationship with nature. Learners must enjoy the rhymes of nature.
Mohondas Karamchand Gandhi	Gandhiji developed craft centric education.

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Similarities:

In all the above activities self-engagement and activity with senses are implied.

Differences:

While the activities perceived by western philosophers directly point out daily life and its problems, Indian philosophers remain silent on them. Activities of Froebel and Montessori support foundational stages of life. John Dewey and Rabindranath Tagore give more importance on multidimensional activity, which may support them throughout their life. Gandhiji is more realistic in design and practice.

Outcome of activity of different philosophers:

Philosophers	Outcome of Activity
Friedrich August Froebel	Froebel develops his activity on the philosophy of creativity and social participation.
John Dewey	Activities of Dewey generate cooperative living in the midst of problem solving situation. Real life experience has relationship with home and community.
Madam Maria Montessori	Montessori did not give importance on group activity and developed the activities through specially designed apparatus.
Rabindranath Tagore	Tagore develops his activity on the idea of freedom and spontaneous communication with nature.
Mohondas Karamchand Gandhi	Activities of Gandhiji based on real life craft centric learning which binds head, hand and heart.

Similarities:

All philosophers tried to keep learners engaged throughout the course activities.

Differences:

Froebel and Montessori strengthen basic experimental understanding of learners. The activity of Dewey and Tagore may have most joyous effect on life and learning of the learners throughout the life. Both of them tried to overcome the burden of learning. Dewey emphasizes community life which has a resonating effect on the learning today. Rabindranath's activity may slow down the learning progress partially.

Regional Comparisons of different philosophers:

European Philosophers		Indian Philosophers	American Philosopher
Friedrich August Froebel Madam Maria Montessori		Rabindranath Tagore Mohondas Karamchand Gandhi	John Dewey
Philosophy	Froebel and Montessori support foundational stages of life.	Both of them tried to overcome the burden of leaning but Tagore is more successful in that.	Dewey tried to develop an inquisitive mind among learning.
Area of activity	Classroom based learning but wide and varied in nature.	Tagore tried to develop both inside and outside of the classroom but gave more importance on outside the classroom like Playground, Trees, Soils etc. Gandhiji also developed both inside and outside the classroom.	Dewey also developed both inside and outside of the classroom. Sometimes classroom based in Natural circumstances.
Design of Activity	Self activity, Guided activity.	Rabindranath Tagore designed his activities in Natural circumstances and learners must enjoy it. Gandhiji designed according craft which had correlation with the activities of practical life.	Dewey designed activities that can be performed in kitchen, garden, laboratory, classrooms.
Support/Apparatus of Activity	Froebel uses 'Gifts' and 'Occupations'. Montessori uses 'Didactic Apparatus'.	Tagore always uses nature. Gandhiji uses different types of hands, eyes and feet related crafts.	Dewey uses all required all items to design activity.

Similarities:

All philosophers develop activity to make children more interested in learning. Learning is joyous and harmonious with life and not idealistically set up.

Differences:

They use different types of supports/apparatus for designing the activity. Activities of Froebel and Montessori direct children towards self-activity and creativity. Activities of John Dewey and Gandhiji are more structured and expand through primary, upper primary and secondary level also. Tagore maintains harmony with nature.

Discussion:

Activity based learning is purely learner centric approach. All philosophers tried to make learning more learner centric. Activity is free from all sorts of physical punishment and always joyous in

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nature. Self-engagement, interest to learn and engagement between learning and community were also emphasized (Westbrook *et al.*, 2013, p. 9-12). The leading philosophers of activity from various countries like Germany, Italy are interlinked in that approach. The idea of learning has been developed in various countries as well as continents of the world for the last two hundred years. Constructivism was the basic philosophical premise under which the idea of activity based learning was developed (Hein, 1991).

After the industrial revolution, some major societal changes have impacted the education system throughout the world. As for example, people became more dependent on machine. They try to relate every activity in terms of economy and output orientation and many more. Froebel's Kindergarten, Tagore's Shantiniketan, Gandhiji's Basic Education are still in force but cannot expand beyond regional localization. The philosophy of Montessori on foundational stages of education and philosophy of Dewey on primary, upper primary and secondary stages of education remain relevant through proper institutional framework (Marshall, 2017 & Aubrey, K. & Riley, A., 2016 and Wada, L.B. & Yankori, B. E. , 2023).

Rabindranath Tagore designed his activities in natural circumstances that learners can enjoy. But gradually learners become classroom centred and co-curricular activity grew in subsidiary dimension. Learners become habituated in performing designed activity according to specific subject matter. Therefore, classroom gains importance over open terrace. Learning through nature is commendable activity based learning but over emphasis on it may slow down the learning process and gain some dubious experience also.

The self-supporting concept of basic education was criticized since its debut in Wardha. Sometimes it is argued that Wardha scheme sets back the clock of civilization to medieval period. On academic level, learners in basic education become more oriented to economic output and on science and technology based learning than development in character and personality. Economically remunerative activities became more preferable than holistic development of Head, Hand and Heart. Basic schools gradually became isolated from the main school system adopted by various state governments since 1960s (NCF, 2005, Work and Education, p.5). Since independence several committees and commissions of India recommended several times to India Government to take full financial responsibility of education system of the country. Evaluating those recommendations Government gradually took financial responsibilities of education by all means and the model of Basic Education became irreverent gradually.

After Second World War, people tried to search for the security in the world. Gradual development of capitalism made the world more formal. Formal enrolment became major point of emphasis in shaping education. Global education also is contextualized with superpowers like Russia and America. Socialist countries like Russia and others also adopted the new trends. Society adopted the trends of formal education, which may be output oriented and nature becomes the constant source of joy and love.

Conclusion

This paper aims to re-conceptualize the activity based learning in all dimensions of consideration like philosophical, psychological and historical, giving a special emphasis on post Industrial Revolution. In broader sense activity exists in every sphere of life like family, religion, community etc. Activity allows engaging two or more people in a real life learning environment with the principles of cooperation and collaboration. Innate tendencies and potentialities of children are the most focused area of activity based learning. Activity based learning considers the psychological principles of constructivism. i.e., learners remain active throughout the pedagogic process. Any kind of playful method is effective for children. The philosophical premise of Activity Based Learning is established in the 18th century with the pioneering educational thought of Froebel. Though the thought was interwoven in the period of Socrates and Humboldt but in the hands of Froebel it came out as a well established method of learning. Then with the desired modifications it becomes successfully popularized in occidental and oriental countries with Dewey and Gandhi.

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