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A Comparative Study of Subject-centred Approach and Broad-fields Approach to Teaching and Their Implementation at Primary Level in India

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Abstract:
This article fundamentally focuses on the source of interest, attraction and motivation for the learners at the primary level. The main concern is the source of variety for children at the primary level. An appropriate source of this variety lies in divergent way of curriculum transaction. Usually, subject-centred curriculum approach is adopted in learning situation. But, topical approach or Broad-fields approach makes learning more diversified to add interest in learning. This article encapsulates the role of the teachers at the primary level to incorporate integration approach in the teaching-learning situation. This study also explores the nature of broad-fields approach to teaching, benefits and limitations of implementing broad-fields approach to teaching in Indian Classrooms.

Keywords: *Subject-centred approach, Broad-fields approach, Divergence, Interdisciplinary, Team-teaching.*

Introduction

Modern psychological perspective in the course of educational scenario entails rapid transformation of the acquisition ability of children. It is especially influenced by the tendency of the children to handle with multifarious gadgets at home as well as at school for example, mobile phones, computers and tablets etc. This usage leads to greater brain activity and the ability of recognizing different objects and activities at the same time. This is true not only to the learners of higher classes but also to the primary standards. They are mostly tech-savvy and their level of curiosity is greater than the previous generation. It is to keep in mind that the minds of young learners are in flux and ever-changing and constantly adapting to the changing scenario. It is imperative to the teachers to be doubly adaptive and updated to the current scenario in global perspectives. Traditional method of single-subject approach in teaching-learning situations keeps the purpose of learning a subject latent or unclear. As a result, learners do not feel interest at the Primary and Upper Primary levels in the age-group of six to twelve. But, this divergent subject-centred approach can be replaced by Topical approach or Integrative approach that is also known as integrative approach or Broad-fields approach that has been delineated and implemented in Finland. As elaborated in eGyankosh by IG (2012), "the Broad-field approach seeks to bring together into a broad organisation of the subject matter, the knowledge and understandings pertinent to a whole area of study. Under broad-fields approach efforts are made to integrate the subject matter of closely related disciplines." This approach has been adopted for Science Curriculum is the U.S.A. and China (Wang, 2019). In India, the

teaching approach is characteristically subject-centred and curriculum is also framed accordingly. The prevalent system of single-teacher session is also a deterrent to implementation of topical-approach because this approach requires presence of multiple teachers together from different disciplines and highest level of coordination is also a prerequisite for adopting topical approach to teaching.

Objectives of the Study:

a. To explore the nature of Subject-centred Approach and Broad-fields approach to teaching.
b. To find out benefits of broad-fields approach to teaching.
c. To seek limitations of implementing broad-fields approach to teaching in Indian Classrooms.

Subject-centred Approach to Teaching:

At the pre-primary and primary-level the teachers should encourage the learners not to subside their urge to go forward but to carry it forward and facilitate the learning situations by using the learners' curiosity and channelize it with proper activity-orientation. According to NCF 2005 in India, special focus should be given on the integration of subjects rather than doing subject division. Subject division like, Languages, Mathematics, Science, diversify the focus of the learners and thereby they become biased to a specific subject and they either express their disinterest in other subjects or they get afraid of it. On the other hand, subject integration helps the students understand the same topic from different perspectives and this is actually needed in our daily life where the learners find not exactly Languages nor Mathematics but exposure to integrative situations like marketplace, natural scenario, transport and entertainment. These are called combinatorial perspectives where an individual combines all types of ideas and knowledge for a successful communication and optimal outcome thereof. To explain it further, the learners are not guided by the knowledge and proficiency of languages only or numerical ability only or knowledge of science only; what they need to use is an integration of all in real life. Mathematics or Science cannot be understood without proper narration and explanation through languages. So, language and mathematics cannot be actually segregated for real time transaction and communication. This is the utilitarian cause behind the integrated studies right from the basic primary stage for preparing them to be ready for future.

Topical or Broad-fields Approach to Teaching:

The latest trend in the assimilation of lessons and creation of a thematic essence of learning experience largely use the methods by framing concept-maps, by using inquiry method along with project-based learning. This integration is actually possible by the use of language through literature. The totality will create a whole theme of learning perspective and this can be exclusively helpful in creating an acquisition-rich environment for the learners. Integration of lessons involves proper choice of different lessons for different subjects based on the same topic, a focus on an incorporated and holistic idea with proper inbuilt differentiation. If the full session takes too long a time to complete in a single unit, the integrated unit should be divided into blocks for better learning outcome. This integration contributes to greater learner engagement in group-work or pair-work, detection of the zones of difficulty caused by possible complexity of lesson integration. This purposive correlation can also result in the formulation of an interconnected world-view in the learners' concentric concept formation stage.

Benefits of Integrative Topical Approach:

Integrated Learning has diverse learning peripherals, such as, student-involvement in learning sessions, resolving issues and interconnections in learning items. Integrated learning ensures

unification, differentiation, making big ideas lucid and transparent and also converging ideas into respective subjects. It is to be kept in mind that all students, after completing lower primary and upper primary education, may not go for higher studies. It is their Right to Education based on the Fundamental right of all Indian Citizens – "Article 45 originally mandated the State to provide free and compulsory education to children between the ages of six and fourteen years, but after the 86th Amendment in 2002, this has been converted into a Fundamental Right and replaced by an obligation upon the State to secure childhood care to all children below the age of six." (Panday & Roy, 2023). This is clear that people's fundamental right is to be literate and attain working knowledge of different fields to choose their own occupation and academic plans going forward. Thereby, integrative approach at the basic level of education really helps.

Nature of Method-Integrated Learning in Broad-fields Approach:

The learning reaches the level of integration because topical approach integrates different methods together for holistic development of learners. The methods include:

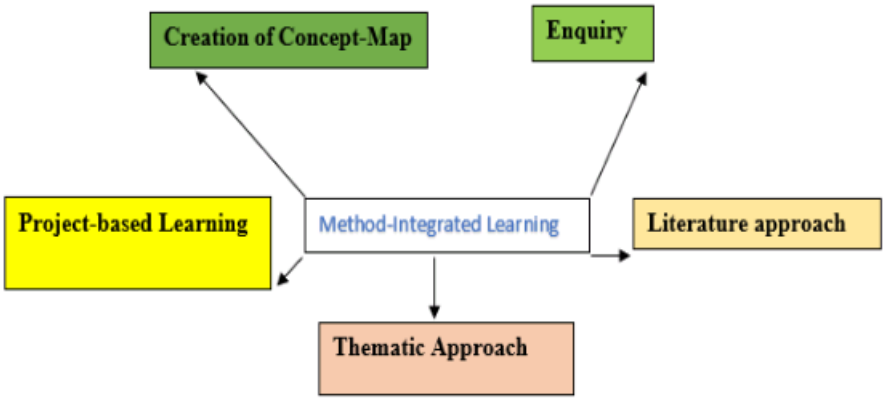

Figure 1: ***Method-Integrated Learning Diagram***

The diagram above makes a branching projection of purpose, method and involvements of Integrative Learning. These are explained below:

Creation of Concept-Map: Concept maps are an effective tool for figuring out how concepts that are taught in class relate to one another. Gaining an understanding of these connections and visualizing them can improve retention and help students learn course material at a much deeper level. Concept maps offer a way to arrange course content in the most practical way and are very customizable.

Enquiry: It is the way to ask questions and it is the best practice to make learners express their curiosity.

Project-based Learning: Kilpatrick formulated the importance of assigning projects for application of learning in the most practicable way. PBL has instructional value because it develops students' ability to think creatively and solve complex or unstructured problems, usually in small groups.

Literature Approach: This approach is an application of narrating stories by converting a learning material into a piece of art. This conversion makes learning interesting to the learners not only by literal conversion but also tonal change in delivery of a lesson.

Thematic Approach: Theme is the concrete essence of a lesson. A lesson usually has different dimensions, for example, social, political, cultural, economic etc. Under each dimension, there

are characters, actions, subjects, objects, process, product etc. Extravagant details may confuse learners. Theme approach ascertains focus on a specific dimension and integrating it with lessons and Learners' experience.

Difference between Subject-based Curriculum and Topic-based Curriculum:

Other than the utilitarian perspective, we, the educators cannot deny the old proverb 'Variety is the spice of life'. We can apply the same in classroom also for making the sessions interactive and interesting. The new breed of trained teachers should be ready to make the variety applicable in classroom by integrating the subjects in the same topic-based teaching-learning sessions to avoid possible monotony arising from disintegrating the subjects and sticking to the unilinear approach. But, the interactive variety in sessions will create interest among the students to learn more and here lies the success of a quality teacher in modern age. Integrative approach is best explained from the curriculum of Finland where topical syllabus designing removes all the monotony of subject-based curriculum. The difference between subject-based curriculum and topic-based curriculum can be exemplified in the following tree-diagrams.

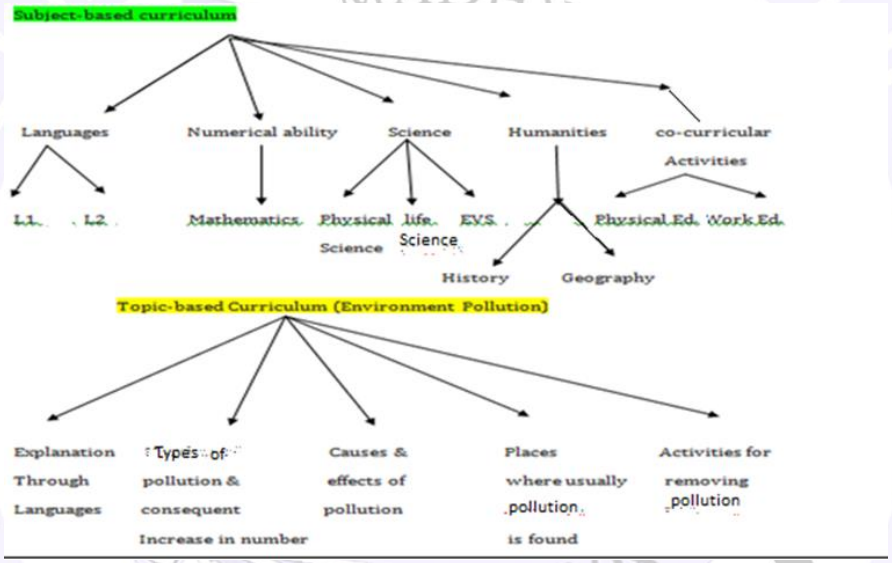

Figure 2: ***Difference between Subject-based and Topic-based approaches***

It is observed in the diagram that in subject-based approach, different subject teachers teach different topics in different sessions and dissect them according to their level of expertise without considering the burden of topics that causes monotony among the learners and thereby removing their interest in learning that is all against the idea of education; whereas, topic based approach focuses on a single topic but analyzes it from different subject-perspectives that supplements knowledge and understanding with a life-like recognition of facts and the objective of the teaching-learning session is more likely to be attained with a higher rate of learning outcome on Environmental Pollution and that is also with adequate variety by rousing learners' interest in the topic of Pollution and it is very much needed in modern learning situations.

Topical Approach and Transversal Competencies in Finnish Education:

Innovation and integration in curriculum-transaction has been explicitly adopted in Finnish Education system where this approach in Finland is specifically known as 'Phenomenal Learning.' In this approach interdisciplinary integration adds variety in teaching-learning situations. Lonka (2018) states, "the society is changing so rapidly that creativity, thinking skills, and more wide-ranging expertise are called for. Holistic and interdisciplinary thinking

is important when solving the ill-structured and wicked problems of our time." The author means to say that interdisciplinary approach can make learning holistic and this type of learning can reach a 'transversal level' according to the author. The following types of learning are possible by adopting Topic-centred approach, as shown in following diagram:

Figure 3: ***Transversal Competencies, Source 'Phenomenal Learning', Lonka, K. (2018)***

Transversal Competencies grow with experiential and applied learning that students learn real-life situations. It does not happen in an idealistic situation on theoretical basis but actually in practical and application basis where learners apply their knowledge and this application plays a Central role in the Finnish National core curriculum.

The Transversal Competencies that Finnish basic education aims to develop are:

1. 'Thinking and Learning to Learn': This is central to process-based learning where learners are oriented in the algorithms in knowledge acquisition, and not just fed with Knowledge. This makes learners independent in learning.
2. 'Cultural Competence, Interaction, and Self-Expression': Topic-based phenomenal teaching approach expose the learners to cultural diversity that urges them to interact in multicultural ambience and share their ideas, knowledge and experience for that leads to construction of knowledge with all uniqueness.
3. 'Taking Care of Oneself and Managing Daily Life': Ground-level learning and pragmatic application of learning make learners self-dependent and this sets a building block in their life for future prospect.
4. 'Multi-literacy': "Multi-literacy is the ability to identify, interpret, create, and communicate meaning across a variety of visual, oral, corporal, musical and alphabetical forms of communication."(Bratitsis, 2022) Learners' exposure to multicultural and pragmatic learning situation creates a sense of linguistic versatility that help them interpret different aspects of their subjects and integrate them with real-life situations, for example, visuals of people belonging to different culture leads to a verbal expression of diversity in the world expressed in form of language. Here, visual stimulus is converted into linguistic expression. At the same time, multicultural learning situations create linguistic diversity in a learning situation.
5. 'Information and Communication Technology (ICT) Competence': Integrative learning approach has a potential to develop the ability to transform knowledge and information into a new entity. The most sensible mode of transformation is digital in nature. This

can be in form of audio-visual multimedia or through a mental-map or Power-point Presentations.

6. 'Working Life Competence and Entrepreneurship': Exposure to pragmatic life-situations by applying intra-subject competency into a constructive version, learners learn to face challenges by solving problems through critical thinking. This develops an entrepreneurial ability in them that bear fruit in near future.
7. 'Participation, Involvement, and Building a Sustainable Future': Theme-based topical learning prepares learners to understand the purpose of learning subjecting knowledge and they apply their realization by participating in problem-solution process and this builds in them an ability to apprehend phenomena and to act accordingly.

Experiential Outcome of Subject-based Teaching and Topic-based Teaching:

Learners have different levels of experience at the Subject- based teaching approach at different subject levels. At the Primary and Upper-primary levels, each teacher provide knowledge on languages, Environmental Education, Mathematics, Social Sciences etc. distinctly. The learners can hardly integrate all these but lack the ability to interconnect these subjects in their daily activities. As found in the Handbook on Education regarding Subject-centred approach to Curriculum, 'The subject-centred curriculum encourages rote memorisation. It does not give real or first-hand knowledge to the students.' Learners are made to learn the concepts formally and the only utility of their learning is materialized in examination only. Subject-based instruction can facilitate students' transfer across schools and help them recognise their areas of strength and weakness. Subject-centred curriculum design, according to some, is not student-centred. The learners get compartmentalised view of education through subject-centred understanding. This fragmented experience in different subject causes liking for and dislike against different subjects that may deter them from applying their knowledge in different needs in their real-life, for example, several cases of dislikes in Science and Mathematics are observed due to difficulty level of subjects or quality of teaching the subjects. It is also true that their liking for specific subject motivates them to study the subject more intensively and gain expertise in individual subjects.

On the other hand, topic-centred broad-field approach is an integrated approach in combination with different subjects together and adoption of different methods together and it requires different subject-experts together to deliver holistic real-life learning experience through team-teaching. This creates a broader perspective of an individual subjects and correlates different aspects of multiple subjects. The learners get an impression of practical application of subjects and no subject-bias develops in them. This is a positive aspect of Broad-field approach that up to a basic level the learners get a holistic view of different subjects together and get a pragmatic view on real-life basis. But, scope is always there for further intensive study at a higher level of education.

Implementational Hurdles of Broad-field Approach in India:

Broad-field approach or Topical approach is seen to have several positive aspects to contribute to real-life education at the primary level but in India there are several obstacles to its successful implementation:

Uniform Government Policy: India is a vast country and uniformity is important is all governmental policies and practices. Any exceptional experimentation or discriminant practice causes social or legal concerns. Curriculum framework is a Governmental task and the practice of Broad-field approach in class-room is not yet recognized.

Lack of Preparation: The teachers need to prepare lesson plans in integrated manner to implement topical-delivery of their lessons. This is a time-taking and exhaustive process. This also works as a potential deterrent to implementation of topical-approach at the Primary Level.

Negative attitude to Team Teaching: Team-teaching or co-teaching is an important prerequisite of successful implementation of Broad-field approach in class-room. Team-teaching is also named as group-teaching or collaborative teaching. This practice necessitates the presence of two or more teachers in classroom or multiple teachers need to work on a single topic as Jayarani (2021) and Kumar (2019) state "Team teaching consists of a group of two or more teachers working purposefully, regularly, and cooperatively to help the students learn effectively." This needs accountability and performance of different teachers together. In many cases, teachers show aversion to teaching in a group together with full compromise. This traditional and conservative attitude leads to popularizing individual subject-teaching and borderlines implementation of Broad-fields or topical approach to teaching.

Conclusion:

Therefore, it is found that a paradigm shift in curriculum transaction goes a long way to make curriculum-transaction learner-friendly making the process of learning a joyful experience as recommended in NEP-2020 in India. Continuous experiments with innovative approached ensures productive learning experience for the new-generation learner. Topic-based integrative approach to teaching opens up a new vista for framing curriculum and executing it in classroom. Subject-centred approach show lots of limitation by making learning prosaic and monotonous and in some way purposeless. This learning-gap can be filled by adopting integrative topic-based approach for teaching for more purposeful and concrete learning experience. Primary education is the fundamental stage of academic development of children. Therefore, the needs for a broader perspective of topical approach works better than compartmentalized subject-centred approach on the young mind for a clear concept-formation but it is also evident that there are several hurdles to successful implementation of Broad-field approach to teaching and these obstacles need to be overcome for the benefit of the learners at the Primary Level.

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