The Attitude of The Secondary School Teachers on Existing School Curriculum in Mathematics: A Study on Integration of ICT

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Abstract: The aim of this study is to explore secondary school teachers' attitude of the existing school curriculum in Mathematics on Integration of Information and Communication Technologies (ICTs) in India using quantitative methodology in the form of descriptive survey. Simple random sampling technique was used to select twenty five secondary school teachers from Government secondary schools. The data was collected from twenty five secondary school teachers using self made tool/ questionnaire. The study was conducted on secondary school teachers and the teachers' opinions on existing school curriculum in mathematics on integration of ICTs.

Keywords: secondary School Teachers, School Curriculum and Integration of ICTs.

I. INTRODUCTION

Education is a means of transformation of human nature and culture. The term 'Education' has been derived from the Latin word 'educare' which means 'to bring up', 'to raise' or 'to elevate' Education is a bi-polar process; there is a strong relation between the education and the educator. In this theory, education in the early stages, in objectives and external when the education is more active, a stage has come in education, where educated beings to malice a conscious effort to regulate himself as an active learner. Sir John Dewey postulated a Tri-polar theory of education – the educators, the educated and his world, which consists of nature and the society. In his views education is child's adjustment with the natural, social and moral world.

Modern education has to equip the child for useful and effective role is the society. In the age of technology, education has to help the child in adjusting to a dynamic and changing world and provides good knowledge and skills necessary for social, physical, intellectual, emotional and moral development of child. It must benefit both – the child and the society, the nation as well as the world. It has to ensure the harmonious development of all the powers of the child. In this rapidly changing world, changing almost beyond recognition in a given time, the role of education becomes of central importance. It is clear from the above statement that the education is a bi-polar process which a view to modify his behavior in order to bring about all round development in thinking process and actions. Organized education has been an attempt on the part of the leaners of society to prepare the coming generation for the tastes of tomorrow. "Man is constantly learning, discovering, aspiring, advancing, growing in knowledge, acquiring newer skills, erasing on the wings of continuance and complexity and trying to raise skillset to higher levels. Education is an insurance against the uncertain challenges of the future with new generation, there is a new tempo of excitement and expectancy".

As a result, the contents and scheme of education inevitably becomes rather out of date or obsolete by the time the children and young are rushed through the educational mind to face the competitive world outside. Education is mainly self-enfoldments and self-realization and it must be co-extensive with life. The secret of education is to create conditions under which the pupil can learn by himself and can go on learning, so that it could be a lifelong process of evolution and growth.

"A curriculum is the sum total of experiences provided to children at school. The experiences to which the children are subjected, embrace the whole school programmes in all its aspects, the class room teaching, the co-curricular activities and the attitudes, appreciation and skills developed in children as a result of formal instruction". In term of **Bent Rudyard** "Curriculum in its broadest sense included the complete school environment, involving all the courses, activities, readings, and associations furnished to the pupils in the school". The curriculum is based on and is shaped by the educational objectives or the explicit formulation of the way in which students are expected to be changed by the education process i.e., ways in which they will change in their thinking, their feelings and actions.

On the other hand, excluding from the definition of curriculum everything except, the statement of objectives and content outlines and relating anything that has to do with learning and learning experience to "Method" might be too confining to be adequate for a modern curriculum. {Hilda Taba –curriculum development & practice, Har

court Brace & world page no.9}. The school curriculum of a country like its constitution reflects the ethos of that country as also its chief concerns. The school curriculum reflect the aim and values which point towards the development of a pluralist often society and in nature its structure, content implied methodology and in its entire design. {Curriculum planning for betters teaching and learning and learning, Rinehart {1954}. There is a need today to transform so as to relate it to the life needs and aspirations of the people, and to make it instrument of social change. Thus the school curriculum should be related to National Integration, social justice, productivity modernization of the society and cultivation of normal and spiritual values

Thus the school curriculum which was considered to be a vital aspect that emits enormous light not only on the schooling of a child but also on the entire development of society should be in tune with the changes in society. "Any change in curriculum will thus bring change is the development of society". The curriculum should be according to the aspiration, desires of the individual and it should be included with the regalements of society. Thus the universalized free compulsory primary education with its present curriculum will definitely yield good results in this society so that individual will be benefited. Considering the significance of child centered education, the present curriculum was framed. The curriculum can be considered to be good when it was approved and positively accepted by the teachers, who actually have to impact education.

"So the positive attitude of teachers will invariably reflect the usefulness of the curriculum. Considering the importance of the attitude of teachers on the existing school curriculum, the investigator selected that area for his peace of research work".

II. REVIEW OF LITERATURE

Kothari Education Report: (1964-66): The education commission under the chairmanship "Kothari" has made some very significant recommendation in commission recognizes the urgent need for curriculum reform. Main recommendations of the education commission in curriculum reform

- An ad hoc reform in the area of curriculum is pointless useless it is preceded by careful research. This will help in revising the curriculum improvement.
- According the commission reform the field of curriculum meaningless, it is followed by preparation of books and other teaching aids.
- The commission has also proposed a systematic in service education of teachers with a view to improving their teaching skills and bringing up about a more sensitive awareness of the teaching process in the changed situation.
- The commission has laid down a principle that any well-devised curriculum must be related to the realistic demands uniform curricular system for the commission, its solution lies in the fact that the state should revise their curricular periodicity to suit their needs.
- The commission has also recommended the gradual introduction of advanced courses and to introduce in the entire subject through a phased number of years.
- The report has suggested a new organizational part term of ten years of general educational of the first years general education, there are seven years relating to primary education.(4 years of lower primary, 3 years of upper primary and 3 years of lower secondary education).
- Throughout the curriculum, the commission has greatly emphasized the learning of Mathematics and Science.
- For the primary stage the commission has greatly emphasized an important aspect of education i.e. reading with understanding.
- According to the commission, social studies may continue as an integrated course of competent teachers and the requisite facilities are available.
- The university education commissions have recommended the introduction of three language formula is our school. According to the commission the most suitable stage for making the learning of three languages compulsory, appears to be the lower secondary stage class VII-X, where smaller number of pupil are involved and better facilities and teaching personnel can be provided.

PILLAI (1968) Investigated the changes in the context and scope of the primary as well as secondary schools curriculum in Kerala during the last 30 years since 1934. After examining the prescribed syllabus, question papers, examination system, administrative reports of the expert committees, he came to a consolation that although in the light of aims and outcomes the syllabus full field the basic requirements as for its contests were concerned, much more examined to be done for raising the standards of education. GUPTA P. K. [1973] the authoreexplores some useful suggestions after studying his research work i.e.,"A critical analysis of the elementary school curriculum in NEF in Arunachal Pradesh"

The major findings of the study are:

- Emphasis should be on the child rather than on craft.
- Music and fine arts must be included for the emotional growth and aesthetic development of children.
- Concept of work experience should be included in NEFA School.

GHOSAL (1978) Made in inquiry into the curriculum trend is the secondary school India during British rule. His thesis has been that secondary schools in India had failed to come up to expectation for the simple reason that is the curriculum was an imitation of the British made without proper consideration, of the social, economic on cultural context of the nation. S. N. GIRI (1978) S. N GIRI gives some useful suggestions after studying his research work i.e. "Studies in comparative analysis of works of curriculum department project in mathematics".

The major findings are:

- There existed curriculum development and appraisal principles well formulated, applied and founded practices in school subjects including mathematics,
- Experimentation in innovation programmes should be continued is India on national as well as on state level.
- The result of experimentation with new material is order developed and developing countries should be used in selecting strategies for taking problems of irritations.

B.P.GUPTA (1983) The researcher of Himachal Pradesh University have made a comparative study of the social studies curriculum with special reference to secondary stage in Himachal Pradesh (1983) the findings of the study were:-

- There was no provision for participation human relationship and other social adjustment, although man's cultural heritage was a part of the existing syllabus.
- There was no scope for development of self-reliance, tolerance, initiation creativity, world mindedness, appreciation and adventurousness of outlook in the existing curriculum of social studies.
- The traditional system of examination dominated the instructional procedures and overall teaching – learning orientation in social –studies.
- The social studies teachers did not build a wholesome community

PANDE.P (1984) An analytical study and development of secondary schools curriculum in Maharashtra, Ph.D.Edu, Nagpur University.

Objectives:-

- *To find out whether the curriculum was rational and \or traditional in scope.
- To find out whether the curriculum was of practical utility for the students in particular and society in general.
- To find out whether the curriculum was flexible.
- To find out whether the curriculum had enough variety to allow for individual difference in terms of abilities, interests needs.
- To find out whether the curriculum was integrated at all levels-primary, secondary.

Objectives of the Study

1. To study the school curriculum in mathematics among secondary school teachers.
2. To study the existing school curriculum in mathematics of secondary school teachers.
3. To study the perceptions of secondary school teachers towards integration of ICT in Existing school curriculum in mathematics.

III. HYPOTHESES

Hypothesis-1: There is no significant relation on school curriculum in mathematics among secondary school teachers.

Hypothesis-2: There is no significant relation on existing school curriculum among secondary school teachers.

Hypothesis-3: There is no significant relation on integration of ICT in existing school curriculum among secondary school teachers.

IV. SCOPE AND METHODOLOGY

(i) Study Area

The study is carried out in Jayashankar Bhupalapally District of Telangan State. The present study is conducted on existing school curriculum in mathematics of secondary school teachers only.

(ii) Sample

The sample is drawn by using random sampling technique 25 secondary school mathematics teachers is selected in Jayashankar Bhupalapally district and from each school 1 secondary school mathematics teacher is considered 25 secondary school teachers.

(iii) Data Collection

The secondary data is collected through the head master and educational officers. The primary data is collected from mathematics secondary school teachers wanting in sample secondary schools by using questionnaire. Apart from the questionnaire, observation methodology is used to collect the data.

(iv) Tools

The researcher is developed a questionnaire for the purpose of the study. The researcher is reviewed the existing school curriculum in mathematics and consulted the from subject secondary school teachers in mathematics.

(v) Data Collection Procedure

Table wise analysis

Statement No 1: Does the school curriculum of mathematics among secondary school teachers**?**

Hypothesis-1: There is no significant relation on school curriculum in mathematics among secondary school teachers.

Table 1: Shows the responses of secondary school mathematics teachers of mathematics school curriculum.

Does the revise the school curriculum boon to the secondary school teachers?	Yes	No	Total	χ^2
	120	00	120	120**

**Significant at 0.01 level

Interpretation:

The table 4.1 represents that the secondary school teachers accepted that the revise school curriculum boon to the students in all the secondary schools in Hyderabad. It can be concluded that all the secondary school teachers opinion to revise school curriculum boon to the students.

Statement Number 2:

Hypothesis-2

Table-2: Shows the responses of the secondary school teachers to revise the school curriculum engage the child in play way method.

Does the revise school curriculum engage the child in play –way method?	Yes	No	Total	χ^2
	58	62	120	0.13##

##Not Significant at 0.05 level

Interpretation:

The table 4.3 represents that the secondary school teachers accepted that the revise school curriculum engage the child in play way method in the secondary schools. The calculated χ^2 value is 0.013 is less than 3.841 at 0.05 level. It can be concluded that there is no significant trend of opinion that the secondary school teachers to engage the child in play way method.

Statement Number 3:

Hypothesis-3

Table-3: Shows the responses of the secondary school teachers to the revise school curriculum more activity based.

Does the revised school curriculum is more activity based?	Yes	No	Total	χ^2
	89	31	120	28.03**

**Significant at 0.01 level

Interpretation:

The table 4.4 represents that the secondary school teachers are accepted that the revise school curriculum more activity based in the secondary schools. The calculated χ^2 value is 28.03 is greater than 6.635 at 0.01 level. It can be concluded that there is a significant trend of opinion that the secondary school teachers to revise the school curriculum more activity based.

V. LIMITATIONS OF THE STUDY

The present study is carried out with the following limitations:

1. The scope of study is confined to Old City & New City Schools in Hyderabad Dist., Telangana State.
2. The Sample is restricted to 120 only.
3. The Study is limited to High school students only.
4. It has been confined to the variables like Gender, Management of the school.
5. The study has been confined to limited schools.

VI. SUGGESTIONS FOR FURTHER RESEARCH

1. The present study was confined to various secondary school students in Hyderabad District only. Further studies should be done at a wide range.
2. The Teachers may be conducted by taking different variables into considerations.
3. The present Study confined to only secondary school students. The research should be done on the basis of secondary school teachers in secondary level, types of organistion, teachers experience.

4. A similar study can be conducted by using the different sampling procedure for generalization of results.

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AUTHOR'S PROFILE

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