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Enhancing the Skills of Hi Tech Lab Utilization in Teaching Geometrical Concepts

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Abstract
Teaching learning is a wonderful experience in every learning places.Particularly in schools it happened every moment.School labs are a great place for students which help them enhance their learning by understanding the theoretical concepts of mathematics which are taught in classrooms. Well-designed Hi-techlaboratories not only make science experiments fun but also help students in achieving good academic results. The world has been taken over by modern technology all around. Even the education sector has adopted the benefits of scientific advancements to offer quality education programmes to the students and teachers. The aim of this present study reveals that the skills of Hi-tech labutilization in teaching geometrical concepts.

Keywords: *Skills of Hi - Tech lab, Geometrical Concepts.*

1. Introduction
Real-life scenarios from textbooks come alive with Math Lab, enabling students to apply the concepts learned in class in real-life situations. Students enjoy Maths as they discover this connection. At present scenarios from textbooks come alive with Math Lab, enabling students to apply the concepts learned in class in real-life situations..To help the students look beyond the written word in textbooks, all government high schools and higher secondary schools in the state of getting their own well-equipped hi-tech labs and smart classrooms.Each lab equipped with 10 computer systems at High school level and 20 computers at higher secondary level, along with projectors, printers, UPS and other peripherals and internet as well. The aim is hi-tech lab is to make the teachers updated with changing times and equip students and teachers with the latest technological methods. In general, if any new endeavour is taken in educational setting, it needs some time to prove its efficacy. The hi- tech labs also have consumed some years and doing wonders in teachers' competence. But an empirical verification is required to confirm the consistency of those hi-tech labs in teaching different subject. Leveraging ICT in schools has now become inevitable in the fast-changing learning environment. The use of technology in schools also helps in bridging the gap in access to information and learning outcomes. Hi-Tech Labs to grasp the potential of ICT for improving learning outcome of students. All these labs shall have a leased line connectivity. The usage of these hi-tech labs shall be monitored centrally with the help of a control room. It is also proposed to use this facility for delivery of digital content and digital assessment of students.Hence, an attempt has been made teaching and learning process in Hi tech labs through this present investigation

2. Need and Significance of the Study
New advances in technology are impacting the learning that takes place in classrooms and in the minds of teachers and students.There are a lot of things that can be said about life and education but the first thing that comes to mind is that neither of them is static; both are dynamic. Not many realize a simple fact: education and technology are two sides of the same coin. New advances in technology

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impact the learning that takes place in classrooms, laboratories, and in the minds of teachers and students. One of the prime aims of the Government of India is the Universalization of Secondary Education (USE), which has resulted in large-scale expenditures in terms of additional schools, classrooms, teachers, and laboratory facilities needed to meet the challenges of providing quality 21st century education. Mathematics as a subject is indispensable in the development of any nation with respect to science and technology since mathematics itself is the language of science. In order to enhance learners' mastery and meaningful learning of geometry in mathematics, it is necessary to reduce to the bearable minimum its level of abstraction with the use of instructional materials. For that we move to normal classroom transactions to Hi tech labs to interact visually and we organized way of learning.

3. Methodology

The present research is mixed method of research. In which quantitative and qualitative methods is integrated. As for as the qualitative research is concerned phenomenology research with observation schedule and experimental methods in single group pre-test and post-test design is adopted for quantitative research. The investigator was conducted the test (Non participate/Naturalistic observation) before the orientation and the score taken as pre-test score. Further the test is conducted after the intervention given by the researcher and then the scores are taken as post test scores. The enhancement in the skills of hi-tech labs utilization is observed by the different schedule and interpreted based on the objectives. Thus, both quantitative and qualitative date collected to arrive at an executive inference.

4. Sample

A sample of 19 teachers selected as the study through simple random sampling technique in Thirumanur block at Ariyalur district.

5. Objectives of the Study

- To identify the skills of hi-tech lab utilization in teaching geometrical concepts
- To enhancing the skills of hi-tech labs utilization in teaching geometrical concepts.

6. Hypotheses of the Study

There is a significant difference between the pretest and post test score of the skills of hi-tech labs utilization among upper primary teachers,

- Usages of software
- Usages of geometrical concepts among upper primary teachers

Table 1 Skills of hi-tech Labs Usages among Upper Primary Teachers

Kind	Test	N	Mean	SD	't'	Level of Significance (0.05 level)
Usage of software	Pre test	19	2.57	1.26	7.90	S (2.02)
	Post test	19	6.42	1.69		
Usage of geometrical concepts	Pre test	19	3.57	1.26	9.26	S (2.02)
	Post test	19	7.57	1.38		

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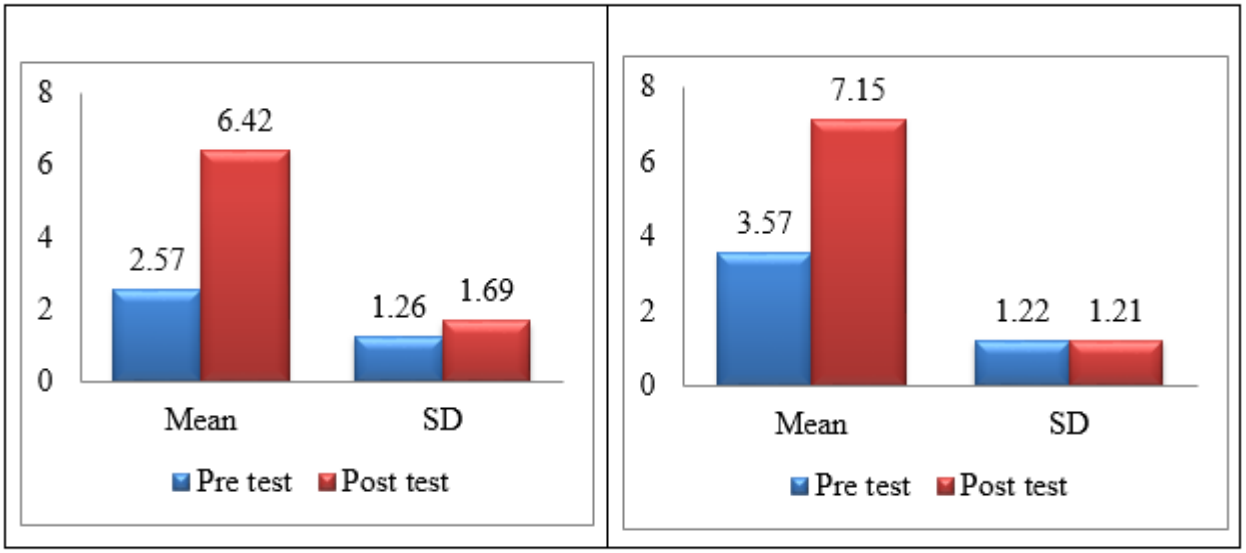

Figure 1 Mean and Standard Deviation for hi-tech Labs Usage

7. Result & Discussion

Hypothesis:

There is a significant difference between the pretest and post test score of the skills of hi-tech labs usages of, (i)Usage of software and (ii)Usage of geometrical concepts among upper primary teachers.

Significant difference between the pretest and post test score of the skills of hi-tech labs usages of software and geometrical concepts among upper primary teachers, as shown in Table 1 and Figure 1. The Table 1 shows that the obtained 't' value

(i) 7.90 is greater than the table value 2.02at 0.05 level and hence it is highly significant. So the upper primary teachers' usage of software increased after intervention.

(ii) 9.26 is greater than the table value 2.02 at 0.05 level and hence it is highly significant. So the upper primary teachers' usage of geometrical concepts increased after intervention.

Conclusion

The success of hi-tech lab method of teaching depends on an able skilled mathematics teacher as well as the availability of a well-equipped hi-tech laboratory. It is expected that the 21st century mathematics educators/teachers should be readily acquainted with the modern-day technique of teaching mathematics in our schools and possibly facilitate their teaching pedagogies with the aid of modern hi tech laboratories to be able to achieve the objectives of the mathematics education. The results indicate that the intervention given by the researcher was improved. This study hereby strongly recommends to all school teachers to liaise with their school principals/heads to facilitate the establishment of a hi- tech lab or for mathematics teaching in their schools.

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