



## MARRILL'S PRINCIPLES OF LEARNING

*Priti Sivaramkrishnan*

*Assistant Professor, St. Xavier's Institute of Education*

### **Abstract**

*The present study aims to understand Pre- service and In- service teachers' perception towards Merrill's first principles of Instructions. The sample for the study consists of 27 teachers of In- service teachers. A research questionnaire consisting of 25 statements was prepared and administered on the first year and second year students. The findings of the study showed that both first year and second year students of pre – service teachers felt that Merrill's first principles of instructions should be integrated in the B.Ed curriculum so as to use the Principles in their teaching and learning.*

**Key-words:** Merill's Principles of Instruction, Pre- service teachers.

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### **Introduction**

Rather like a movie director who decides to shoot the climactic scene first, peeking ahead at the culmination of your journey will help you navigate the journey itself.

Instruction in layman's term means detailed information about how something should be done or operated. A teacher has a very important role to play as each time the teacher interacts with the students using different kinds of instruction. The different platforms a teacher instructs are during Parent teacher meetings, designing lesson plans, during the conduct of curricular and co-curricular activities. It is very important that teachers plan the instructions well ahead. And this is where the instructional model would help teachers understand how to design and deliver effective learning opportunities for students. Quality is multifaceted term and when quality in education is understood as quality refers to meeting the best standards in each and every aspect of education. It is observed that one dimension of quality would mean instruction by the teacher in class. High performing and low performing schools are differentiated on the basis of instructional quality in school abroad (Barber & Mourshed, 2007; Chenoweth, 2007, 2009; Hattie, 2011; Jackson & Makarin, 2018; Kulik, Kulik, Bangert-Drowns, & Slavin, 1990; Pianta, Belsky, Houts, & Morrison, 2007 Reynolds, Stringfield, & Schaffer, 2001). Hence instruction plays a key role in creating engaged learners by engaging their minds.

To create engaged learners in the class it is important that the teacher reflects on the techniques and strategies used by oneself while interacting with her students. Different techniques and models can be adopted by teacher to suit different contexts and purpose. The success of these models will depend on how well the teacher has understood the model and how efficient the teacher is use the model for her classroom context. One such model that would be effective and ensure that better learning takes place through teachers instruction is Merill's

### **Principles of Instruction**

Merrill's first principle of instruction is based on five principles of instructional design. Merrill's principle consists of interrelated principles which helps in a better understanding of the concept through identification of



the task/ problem, activation of the previous knowledge, demonstration of the topic of discussion and focusses on finding solutions to the real-world problems and integrating and applying the knowledge in their daily lives to benefit the world.

Merill's Principle of Instructional Design. (Merill, 2002)

- The task-centered principle: Learning is promoted when learners engage in a task-centered instructional strategy.
- The activation principle: Learning is promoted when learners activate relevant prior knowledge or experience.
- The demonstration principle: Learning is promoted when learners observe a demonstration
- The application principle: Learning is promoted when learners apply the new knowledge
- The integration principle: Learning is promoted when learners integrate their new knowledge into their everyday world (Merrill, 2009; 44).
- Problem centred. Learning is promoted when learners are engaged in a problem-centered strategy involving a progression of whole real-world tasks.

In the present era information and knowledge is easily at your disposal with a click of the button. During the pandemic times there has been a spurge in the various channels that help a child to simplify the knowledge and concepts to be studied. It is very important to consider if this knowledge is sufficient enough for the true understanding among students. A teacher has to be more thorough with the content knowledge and at the same time explore innovative ways to convey knowledge to the students. A true teacher is one who is passionate about her teaching and one who is involved with her students.

A teacher has always to be innovate and adopt new practices and strategies. It is always said that a teacher has to be innovative and ensure that as much as possible innovative techniques are used for teaching. Children should always be an active participant in trying to understand and gauge the knowledge. Traditional method only focussed on rote memorization with less scope of creativity among students. Teachers are constantly on the look out for new and innovative methods of teaching. Various theories have evolved in the teaching learning process. The use of these theories is to ensure that they simplify the process of teaching and act as aid to make the process of teaching a simple one. Instructional theories help in effective teaching of students. The theories identify different methods of instructions which can be broken into detailed steps and they also suggest situations in which these steps can be taken (Driscoll, 2005; Reigeluth, 1999). One such instruction is Merrill's first principle of instruction.

### **Need of the Study**

Most of the policies in India and abroad have always focused on ensuring that with education and knowledge imparted students are able to be problem solvers. And using the Merrill's Instructional Design student would understand the different problems and think of ways of solving the problem. This kind of instructional design would help build curiosity, problem solving and scientific temper in the students. This will also help the students to become future thinkers and they can come up with new discoveries and inventions. With this objective in mind the researchers aimed to study the pre-service teacher's perception towards Merrill's principle of learning and development of learning based on Merrill's Principle

### Statement of the Problem

A study on the pre-service teacher's perception towards Merrill's principle of learning and development of learning based on the Merrill's Principle

### Objectives of the study

To study student teacher's perception towards Merrill's principle of learning and development of learning based on the Merrill's Principle.

### Hypothesis of the study

1. There is no significant difference among the pre-service student teacher's perception towards Merrill's principle of learning and development of learning based on the Merrill's Principle.

### Sample for the study

The sample for the study comprised of 27 Pre – service teachers of a teacher education Institute of Mumbai.

### Tools for the study

A research tool to find out pre -service and in – service teacher's attitude towards Merrill's Principle was prepared. 4 point rating scale was used for the study. Along with a closed ended questionnaire, open ended questions were also asked to students to understand what students teachers feel about the extent of problems to be used while using Merrill's First Principles of Teaching.

### Tool Validatiaon

Pool of 40 questions was prepared after which the tool was sent to experts for validation. Based on the suggestions provided by experts additions and deletions to the questionnaire was made.

### Data Collection

Data was collected in online mode through google form

### Data analysis.

t- test was used to test the hypothesis.

The following table shows the pre -service teachers' perception towards Merrill's Principles of learning between the first year and second year students

**Table 1: t- value of the** student teacher's perception towards Merrill's principle of learning and development of learning based on the Merrill's Principle.

Variable	Group	N	Mean	SD	T ratio	Df	Tabulated value	I.O.S
Merrill's Principle	First Year Students	9	108.55	13.77	-1.1	25	At 0.05 level = 2.48	Not Significant
	Second year Students	18	113.50	8.51			At 0.01 level =1.71	

**Interpretation of t – test:** The obtained value of t ratio for the perception towards Merrill's Principle between first year and second year students is -1.1 which is less than the tabulated value 1.71. Thus the 't' ratio is insignificant and the null hypothesis is accepted.



### Discussion based on the Findings.

It is very evident that student teachers of first year and second year strongly feel that the future students should be aware of the real – problems. Children learn well when they are activity engaged in solving the real world problems. Most of the student teacher agreed that the students develop interest only when they feel that the problem could be observed. Students adopt divergent thinking and are able to relate to the problem and solve the problem with the knowledge gained. It is strongly recommended that Merrill’s First Principle of Instructional Design should be adopted in

the B.Ed curriculum. Familiarizing students with Merrill’s First Principle of Instructional Design would help student teachers acquainted with the model and at the same time students teachers would use innovative ways of teaching concepts. Through this research it is very evident that both pre -service teachers of both grades first year and students felt that Merrill’s Principle of Teaching is a very important and useful technique to teach the concepts through an activity based teaching. It was also felt demonstration should be part of the teaching process and projects, discussions, charts, pictures, examples, videos can be used for demonstration. They also felt both demonstration and virtual media can be used for exposing students to real world problems. These techniques adopted by the teacher would help teachers to be innovative and effective in the teaching process.

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