

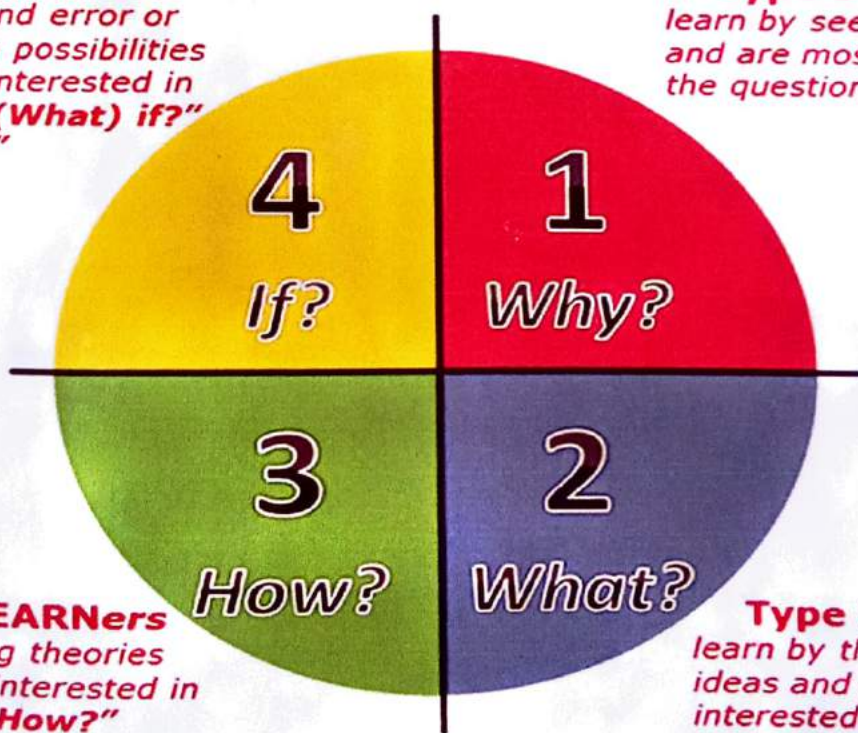
# Effectiveness of 4MAT System of Instructional Design on Learning Styles, Hemispheric Preferences & Achievement in Physics of Students at Secondary Level.

## **Type 4 LEARNERS**

learn by trial and error or seeking hidden possibilities and are most interested in the question "**(What) if?**" or "**So what?**"

## **Type 1 LEARNERS**

learn by seeking meaning and are most interested in the question "**Why?**"



## **Type 3 LEARNERS**

learn by testing theories and are most interested in the question "**How?**"

## **Type 2 LEARNERS**

learn by thinking through ideas and are most interested in the question "**What?**"

Anne Mary Thomas  
Sajna Jaleel

**Effectiveness of 4MAT System of Instructional Design on Learning Styles, Hemispheric Preferences & Achievement In Physics of Students at Secondary Level, First Edition**

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**Dr. Anne Mary Thomas & Dr. Sajna Jaleel**

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PHYSICS OF STUDENTS AT SECONDARY LEVEL**

**THESIS SUBMITTED FOR THE DEGREE OF**

**DOCTOR OF PHILOSOPHY**

**IN EDUCATION**

**BY**

**ANNE MARY THOMAS, M.Sc., M.Ed.**

**(UGC-Senior Research Fellow)**

**UNDER THE SUPERVISION OF**

**Dr. SAJNA JALEEL**

**Assistant Professor**



**SCHOOL OF PEDAGOGICAL SCIENCES**

**MAHATMA GANDHI UNIVERSITY**

**KOTTAYAM, KERALA**

**April 2014**

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Effectiveness of 4MAT System of Instructional Design on Learning Styles, Hemispheric Preferences & Achievement in Physics of Students at Secondary Level: This is a Ph. D. Thesis submitted to Mahatma University, Kottayam, Kerala. The efforts are being made in order to popularize this tool of instructional design for larger society so as to use the same for teaching and encouraging continuing research in this area. About the Author: -Dr. Anne Mary Thomas has done her Doctorate in Education, Masters in Education, Physics from Mahatma Gandhi University, Kottayam and Masters in Psychology from Madras University, Chennai. She has been teaching, writing and guiding postgraduate students in research and doing relevant publications for the past ten years. At present she is a Post Doctoral Fellow in the School of Pedagogical Sciences, Mahatma Gandhi University, Kottayam, India.



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