

# **Re-engineering Teacher Education**

## **Approaches and Challenges**



**Editors**

**Rev. Dr. D. Thomas Alexander SJ**

**Dr. A. Punitha Mary**



**AASAAN PUBLICATIONS**

# Re-engineering Teacher Education

---

## Approaches and Challenges

**Editors**

**Rev. Dr. D. Thomas Alexander SJ**

**Dr. A. Punitha Mary**



**AASAAN PUBLICATIONS**

**St. Xavier's College of Education (Autonomous)**

(Re-accredited (4<sup>th</sup> Cycle) at 'A<sup>+</sup>' Grade by NAAC)

Palayamkottai, Tirunelveli – 627002, Tamil Nadu, India

All rights reserved. No part of this publication may be reproduced in any form by any means without the prior written permission from the publishers.

All data, information, views, opinions, charts, tables, figures, graphs, etc that are published in this volume are the sole responsibility of the authors. Neither the publisher nor the editors in any way are responsible for the same.

Price: Rs.500/-

ISBN:978-93-84192-22-8

©March 2024

Published by

AASAAN Publications  
St. Xavier's College of Education (Autonomous)  
Palayamkottai-627002

## PREFACE

Dear Teaching and Research Fraternity, Greetings from SXCE, Palayamkottai!

Oh, Teacher Education! Quo Vadis? (Latin phrase for 'Where are you going?'). Where are the teacher educators? Where should we be heading towards? Are we on the precise road? What should be triggered? What kind of teachers do we mold to face the challenges of today's world? These are a few questions being raised among the teachers, teacher educators, educationists, policymakers, elderly citizens, and stakeholders such as parents and well-wishers. In search of reflective answers, our college ventured into the organization of a national conference of teacher educators, focusing on 'Re-engineering Teacher Education: Approaches and Challenges' on February 2nd and 3rd, 2024. It was consciously made offline to avoid the undesirable academic sluggishness and disasters in online transactions. We aimed to provide a platform on which the above questions may be deliberated, and concrete action plans may be initiated.

Teacher education is a foundation laid for the sustainable growth and development of any nation. If education must prosper and function positively in a society, then improving teacher education is vital and indeed inevitable. Teacher education is expected to contribute towards developing a basic understanding of the principles and practice of teaching and learning. It is to produce well-qualified professionals who can adjust to the changing needs of the students and developmental prospects of modern society. In it, knowledge and skills are developed, thereby building teachers/people to become useful to themselves and to the society they live in.

Which means, the need for overhauling and revamping of the system at a regular interval is a must for innovative and relevant training of prospective teachers, and meaningful classroom teaching-learning activities. Therefore, the keyword 'Re-Engineering,' which means a 'systematic process of analysis, design, and implementation' (Akpan et al, 2016), assumes significant importance if teacher education is to be modernized. Needless to say, the reassessment of teachers, existing pedagogic tools and materials will have to undergo stringent scrutiny of its appropriateness in the classroom transaction. Or we must agree, at least to the understanding that the re-engineering will require the use of both traditional and technological tools and modes, building on and extending traditional social forms of teaching and learning.

The current challenges that teacher education faces today after the advent of LPG mainly are related to the lethargic and easy-going attitude of teacher-educators, less enthusiasm among prospective teachers, a disconnect between pre-service training and post-training classroom activity, slow process of evaluation and revamping of learning content, diminishing professional commitment, rare model ethical behavior, and slow adoption to the rapid change of technological and scientific discoveries and inventions in the educational system. Hence there is a need for stimulating the professional spirit among the teacher educators/teachers, retaining the spirit of inquiry and creativity in teachers, enhancing teachers' commitment, training and motivating teachers for effective handling of classroom situations at different levels, and equipping them with modern Learning Management Systems (LMS). There is no one-size-fits-all solution; rather, each locality requires its own creativity, redesigning of content suiting local geographical conditions and needs, and adapting to the growing demands of society.

Thus, the two-day national conference on the above central point of re-engineering of teacher education enabled us to collectively, in person, ponder over various sub-themes and had the privilege of 43 papers being presented on the portal of St. Xavier's College of Education (Autonomous), Palayamkottai, Tirunelveli, Tamil Nadu. Indeed, it was a unique experience to listen to so many speakers, including a thought-provoking panel discussion among administrators, faculty, parents, and students on the existing scenario in teacher education.

We are grateful to all the speakers, paper presenters, and the participants for their wonderful sharing and contributions along with their enthusiastic participation. Thus, we are very proud to publish the collections of the best papers presented at the conference as e-proceedings with an ISBN number. We are sure, this will go a long way to trigger the minds of younger teacher educators and prospective teachers in its way; we hope the responsibility of bearing this torch to further the cause of quality teacher education will continue in the future. I would like to fondly remember the painstaking effort undertaken by Prof. Dr. A. Punitha Mary and other faculty of our college for magnificently organizing the event to the point of relevance, quality, and fruitfulness.

May God bless you.

Prof. Dr. D. Thomas Alexander SJ, Principal,  
SXCE, Palayamkottai, Tirunelveli, TN.  
29.02.2024.

## Contents

<b>Preface</b>	<b>iii</b>
----------------	------------

### Chapter I

#### Emerging Technologies and Innovations in Education

1. The Melodic Symphony of Education: Considering the Innovative Potential of Suggestopedia in Pedagogy <i>Saritha C Babu &amp; Dr. K.Gireesh Kumar</i>	1
2. Pecha Kucha: An Innovative Pedagogical Approach for Developing English Speaking Skills in Primary Teachers <i>Dr A. Philomine Bala &amp; Dr. M. Antony Raj</i>	6
3. Intelligent Education: A Journey into Artificial Intelligence Enhanced Teaching and Learning <i>Soumya M S &amp; Dr. S. Devika</i>	14
4. Adolescents Online Behaviour <i>A.Sathya &amp; Dr. G. Rexlin Jose</i>	20
5. Developing 21 <sup>st</sup> Century Skills among Prospective Teachers through STEM Approach <i>M.Viji &amp; Dr. H. Deepa</i>	26
6. Enhancing Higher Order Thinking Skills for Academic Excellence <i>Nisha M S &amp; Dr. Bindu Gouri V P</i>	30
7. Empowering Pre-Service Teachers through Emerging Technologies in Education <i>J. Soosai Mary Nancy &amp; Dr. P. Muthupandi</i>	36
8. Generative AI – The Master of Creation <i>A.Priscilla Valan Assumptio</i>	42
9. Interactive Trigonometry: Unleashing the Power of E-Content in Education <i>L. Mahesh &amp; Dr. A. Michael J Leo</i>	47
10. Empowering Minds and Nurturing Earth: Fostering Ecological Intelligence through Innovative Education Practices <i>Sreelakshmi C &amp; Dr. S. Devika</i>	53
11. Emerging Technologies and Education <i>N. Fathima Chandhini</i>	60



- |   |    |
|---|----|
| 12. Pedagogical Innovations in Education<br><i>Dr. K.K. Rajendran</i>   | 65 |
| 13. Shaping the Future of Education : Analysing the Potential Impact of<br>Online Learning and E-learning Systems<br><i>Dr. G. Annlet</i>       | 73 |
| 14. Pedagogical Methods and Innovation<br><i>R. Shanmugapriya &amp; Dr. H. Deepa</i>  | 81 |
| 15. Enriching the utility of select e- learning materials through demo classes<br>among Primary School Teachers<br><i>Dr. M. Gnana Soundari</i> | 87 |

## Chapter II

### Role and Responsibilities of Teachers in the Digital Era

- |   |     |
|---|-----|
| 16. Cultivating Digital Pedagogues: Navigating Digital Landscapes<br>for Enhanced Learning<br><i>Feba Ann Thomas</i>                  | 92  |
| 17. Divulging the role of Educators in Imparting Life Skills<br><i>Jyothish John Kizhakkethalackal &amp; Dr. H. Deepa</i>             | 99  |
| 18. Multifarious Qualities and Multifaceted Responsibilities of<br>Teacher Educators<br><i>V. DelwinMary &amp; Dr.A. Punitha Mary</i> | 104 |
| 19. Value orientation in Teacher Education<br><i>Baskar.Y. &amp; Dr. A. Michael J. Leo</i>  | 109 |
| 20. Inculcation of Values through the Process of Learning<br><i>Michael Lathis G &amp; Dr. A. Punitha Mary</i>                        | 114 |
| 21. Role of Social Agencies In Value Inculcation to Learners<br><i>S. Rajamanickavasagan &amp; Dr. A. Punitha Mary</i>                | 119 |
| 22. The Role of Teacher in Nation Building<br><i>M.Sajitha</i>  | 125 |
| 23. Fostering learning skills through multiple intelligence<br><i>Sangeetha G S &amp; Dr. Deepa R P</i>                               | 128 |
| 24. Challenges for running CBSE schools in India: navigating the<br>dynamic educational landscape<br><i>M. J. Sharmil</i>             | 134 |
| 25. Developing 21st century skills among prospective teachers<br><i>AjitPoulKujur</i>   | 140 |

26. Pedagogical Methods and Innovations for science student in High school level 146  
*A.Vennila & G.Ramesh*

### Chapter III

#### Mental Health of the Teachers

27. The Impact of Mental Well-Being of the School Teachers 150  
*A. Ignaciammal & Dr. P. Muthupandi*
28. Nurturing Mental Health among Prospective Teachers for Holistic Education 155  
*Dr. R. Sathesh Franklin & Dr. A. Nicholas Jegan*
29. Teachers' Mental Health: Challenges and Solutions 159  
*Dr. R. Grace Sophia*
30. Strategies for Building Emotional Intelligence for Intangible Lifelong Cognitive Gains 165  
*Dr. P. Subramanian & M. Rathish*
31. To enrich the mental health of teachers 172  
*V.Rajkumar & K.Mathumitha*
32. Mental Health of the Teachers 177  
*S.Vaishnavi*
33. Nurturing the Roots: The Essential Role of Teacher Mental Health and Mindfulness in Education 182  
*S.Ulagammal & Dr.C.Ramesh*

### Chapter IV

#### NEP and Teacher Education

34. Transformation of Teacher Education for Building Resilience of Pre-Service Teachers 186  
*Evangaline Arulmary K. & Dr. M. Antony Raj*
35. Metamorphosis of Digital Education in India with Special Reference to the Policies and Regulations of NEP 2020 192  
*Krishnendu E.S.*
36. Fostering Multifaceted Dimensions of Professionalism among Teacher Educators 200  
*S.S.Helen Sathia Sheela*



37. Empowering Educators: Integrating Sustainable Development Goals in Teacher Education Curricula <i>Dr. R. Indra Mary Ezhilselvi</i>	206
38. Navigating New Horizons: The Future of Teacher Educational Institutions in India <i>Dr. U. Subramanian &amp; Dr. A. Nicholas Jegan</i>	212
39. Challenges of Teacher Education in NEP 2020 <i>Dr. Y. Daniel</i>	217
40. Utilizing AI in The NEP 2020 Framework: A Pathway to Enhanced Scientific Reasoning Abilities in Indian Education <i>A.Y. Paul Usha Rani</i>	223
41. Role of Evaluation in Teaching and Learning Process <i>Sankareswari N, Dr. H. Deepa</i>	230
42. Evaluation Process in Teacher Education <i>Dr. A. Nicholas Jegan</i>	236
43. The Teaching Approaches for the Reduction of Cognitive Dissonance <i>P. Rajeshwari, Dr. A. Michael J Leo</i>	240

# THE TEACHING APPROACHES FOR THE REDUCTION OF COGNITIVE DISSONANCE

**P. Rajeshwari**

*Research Scholar, St. Xavier's College of Education (Autonomous), Palayamkottai.*

**Michael J Leo., A., Ph.D**

*Research Supervisor, St. Xavier's College of Education (Autonomous), Palayamkottai.*

## Abstract

*Cognitive Dissonance Theory was introduced by Leon Festinger (1957), and arguably, this classic theory is still relevant to this day. Festinger described that cognitive dissonance occurs whenever people are confronted with facts that contradict their beliefs, values, and ideas; they will thrive on finding a way to resolve the contradiction to reduce their discomfort. The theory applies to all social situations involving the formation and changes of human attitude, and it is particularly pertinent to the process of decision-making and problem-solving. The relevance of the theory is still reflected today in the class room teaching and learning. Cognitive Dissonance are factors that affect a learner with memory, problem-solving, and comprehension difficulties. Hence, this review paper attempts to provide an overview of the classic theory by exploring the core assumptions of the theory, causes of dissonance, and the theoretical implications on classroom teaching.*

*Key words: Problem Solving, Cognitive Dissonance*

## Introduction

The theory of cognitive dissonance was first introduced by Leon Festinger in 1957 and developed rapidly as an approach to understanding common areas of human psychology, communication, and social influence (Festinger, 1957). Cognitive dissonance theory has become one of the most widely accepted approaches in explaining human behavioural change and many other social behaviours.

## Causes of Cognitive Dissonance

Festinger (1957) described that the emergence of dissonance could be caused by two general situations, namely when new information occurs and when a decision making must be made, where the cognition of actions taken is different from opinions or knowledge that lead to other actions. Furthermore, Festinger (1957, 2002) explained such situations might be brought by at least four (4) causal factors.

### ***Logical inconsistency***

It can be described as the logic of thoughts, arguments, or reasoning that contradict each other. For example, someone who believes that humans can reach the moon; on the contrary, also believes that humans cannot make a spaceship that can take them of the earth's atmosphere.

### ***Cultural values***

A person's cognition from one culture is likely to be different in others' culture. As an illustration, an Indonesian or Malaysian who believes that eating using hands is a regular thing. At the same time, the custom is dissonant with the fact that the practice might be unacceptable in the British culture ethics of eating. A scholarly example of cultural dissonance is reflected in a cross-cultural investigation of cognitive dissonance and self affirmation effects on enthusiasm (Hoshino Browne et al., 2005). Their study strengthens the notion that culture forms conditions that cause and mitigate dissonance.

### ***Forced Compliance Behaviour***

This behaviour occurs when a person is forced to perform actions that are not consistent with his or her beliefs. Consider a company accountant who is told to cover up an instance of financial swindle by his employer. The accountant believes this is wrong, yet he might be forced to do it in order to retain her job. In line with this, McLeod (2018) added that a person's forced compliance behaviour could not be changed since the behaviour was already occurred in the past, so dissonance will need to be reduced by re-evaluating his or her attitude to what they have done.

### ***Prior experience***

The dissonance will arise if a person's cognition is not consistent with his or her experience. For example, one time, a friend of mine, who has a great taste in choosing restaurants, recommends a new place downtown. I have no doubt and quickly trying it out. Unfortunately, the food was terrible, and the service was not okay, and this experience becomes my mental dissonance. Then I decide to bridge the dissonance by saying that I will try it again next time, but I will avoid going back to that restaurant due to my past experience and because I do not want to raise questions about my friend's level of taste again.

## **Teaching approaches for managing dissonance**

Cognitive Dissonance are factors that affect a learner with memory, problem-solving, and comprehension difficulties. Teachers often face a lot of difficulties and time constraints in addressing the Cognitive Challenges faced by students. Discussed are a few Teaching Approaches to handle cognitive dissonance that can be implemented to help the students overcome some common dissonance and hurdles that they face.

### ***Student Mental Mindset***

Mental Mindset refers to a student's perspective, belief, and expectation about a particular subject or topic. This makes them feel that they do not have the ability to learn it and discourages them from approaching the subject.

### ***Teaching Approaches***

Explaining the value, outcome, and impact of learning helps to develop ownership of learning and helps students to cultivate the right learning habits and mindset. Promote growth mindset beliefs, e.g., ability and competence grow with effort.

### ***Metacognition and Self-Regulation***

This process includes monitoring and controlling the thought process, emotions, and behaviour of a person. Certain times it is observed that some students tend to be overconfident about their knowledge or abilities and do not tend to pay attention to the information that is delivered to them.

### ***Teaching Approaches***

Carrying out self-reflection processes such as continuous evaluation or assessments helps students to have a realization of their weaknesses and thus, they adjust themselves in their learning process.

### ***Insufficient prior knowledge and misconceptions***

Lack of required prerequisite knowledge for mastering new content will be existing in students at times. Also, misconceptions about a topic retard student's understanding of a topic.

### ***Teaching Approaches***

Conducting initial assessment, conducting revision classes prior to advanced topic coverage can help the students to get thorough knowledge of basic concepts. And to eliminate

misconceptions, conducting open discussions, debates, calling out students to justify their ideas can be implemented.

### ***Ineffective Learning Strategies***

Ineffective learning strategies include cramming on the previous night of examination, multitasking, re-reading without understanding, and passive highlighting of topics.

### ***Teaching Approaches***

Explaining to students the right approach to study different subjects will help them to design their own learning mechanisms. Suggesting to adopt a spaced learning approach, i.e. breaking a long course into small modules of shorter durations and frequent breaks makes the learning process more interesting.

### ***Constraints of selective attention***

This includes lack of focus, multitasking, and impulsive behaviour which affects the learning process.

### ***Teaching Approaches***

Increasing the clarity of information delivered, providing frequent breaks, and guiding students to avoid multitasking can help them to be more attentive.

### ***Constraints of Mental Effort and Working Memory***

This problem arises when content is too complex and when students try to memorize too much information without a clear understanding

### ***Teaching Approaches***

Organizing information, providing micro learning contents, and practicing retrieval mechanisms can tackle these constraints. Cognitive Challenges in an individual are not unalterable. It can always be strengthened through habitual actions and optimization of our actions. Teacher's influence in moulding the cognitive potential of students can impart great changes in their learning process as well as day-to-day life.

### **Implications for teaching approaches**

Effective teaching is a matter of managing the dissonance in the classroom to bring about student learning.

Teachers can use the framework to anticipate, recognize and respond to the cognitive dissonance in their classroom.

- To establish trust among struggling students, teachers can use wise feedback to communicate the belief that students are capable of succeeding in the course and that critical feedback is intended to help them improve, not to weed them out.
- To help students develop essential prior knowledge in the class, teachers can use practice quizzes with homework assignments to ensure they have an initial grasp of key concepts before each class. Practice quizzes can also reveal students' knowledge gaps and misconceptions about the subject matter which teachers can then address in class.
- To support students' attention, teachers can explain the detrimental effects of multitasking in class and when studying.
- In class, teachers can adjust the organization and pace of their class presentations to manage the difficulty students will experience in trying to learn large amounts of new information.

Overall, these teaching approaches can help teachers understand the reasons for students' learning difficulties and adapt their teaching with the goal of bringing about optimal student learning.

### **Conclusion**

This thematic review paper established the significance of cognitive dissonance theory. Even now, the theory coined by Leon Festinger is still relevant in explaining and predicting human behaviour, significantly when they change their attitude or behaviour to accommodate the dissonance due to acquiring extensive information.

### **Reference**

- Yahya, A.H., & Sukmayadi, V. (2020). A review of cognitive dissonance theory and its relevance to current social issues. *MIMBAR: Journal Social Dan Pembangunan*, 36(2), 480-488. <https://blog.linways.com/teaching-approach-handle-cognitive-challenges-students-face-part-2/>
- Chew, S.L., & Cerbin, W.J. (2021). The cognitive challenges of effective teaching. *The Journal of Economic Education*, 52(1), 17-40.



**E-mail : [sxcbcd@yahoo.com](mailto:sxcbcd@yahoo.com)  
[sxcbcd1@gmail.com](mailto:sxcbcd1@gmail.com)  
Visit us @ [www.sxcdn.edu.in](http://www.sxcdn.edu.in)  
Phone no: 0462-2577630**

ISBN No. 978-93-84192-22-8



9 789384 192228

₹ 500/-