CREATIVITY FOSTERING TEACHER BEHAVIOUR IN RELATION TO CREATIVE TEACHING ATTITUDE AND TEACHER SELF-EFFICACY OF ELEMENTARY SCHOOL TEACHERS IN NAGALAND

Thesis Submitted to Nagaland University in Partial Fulfilment of the Requirement for the Degree of Doctor of Philosophy in Education

By

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UNDER THE SUPERVISION OF
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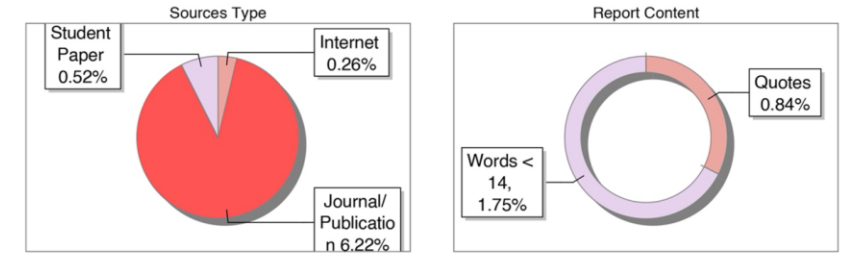
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EXCLUDED PHRASES

1	**elementary school teachers**
2	**creative teaching attitude**
3	**creative process**
4	**creativity-fostering teacher behaviour**
5	**statistically significant difference**
6	**significant relationship between**
7	**mean scores of**
8	**mean, median, mode**
9	**male and female teachers**
10	**teaching experience**
11	**no significant difference**
12	**government and private schools**
13	**stratified random sampling**
14	**foster creativity**
15	**sample of the study**

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List of Abbreviations

ANOVA	Analysis of Variance
ASCT	Attitude Scale of Creative Teaching
B.Ed	Bachelor of Education
B.El.Ed	Bachelor of Elementary Education
CFTIndex	Creativity Fostering Teacher Behaviour Index
CTA	Creative Teaching Attitude
D.El.Ed	Diploma in Elementary Education
DoSE	Department of School Education
Govt.	Government
GHS	Government High School
GHSS	Government Higher Secondary School
GMS	Government Middle School
GPS	Government Primary School
M	Mean
MS	Mean Squares
N	Number of Observations
NACCCE	National Advisory Committee on Creative and Cultural Education
NBSE	Nagaland Board of School Education
NCF	National Curriculum Framework
NCTE	National Council for Teacher Education
NEP	National Education Policy
Pvt.	Private
RAND	Research and Development
SD	Standard Deviation
SS	Sum of Squares
TSE	Teacher Self-Efficacy
TSES	Teacher Self-Efficacy Scale
P-value	Probability value

APPENDICES

Appendix-A Creativity Fostering Teacher Behaviour Index (Soh, 2000)

Appendix-B Teacher Attitude Scale of Creative Teaching

Appendix-C Teacher Self-Efficacy Scale

Appendix-D List of Validators

Appendix-E List of Selected Schools

Appendix-F List of Publications/Paper Presentations

CHAPTER - I
INTRODUCTION

"Creativity is as important in education as literacy and should be treated with the same status."

Sir Ken Robinson (2006)

1.0 Introduction

Creativity, as one of the critical abilities for the twenty-first century, has gained significant attention in a spectrum of fields, including education. Enhancing creativity has become a global priority due to social and economic developments, as well as the need to strengthen global competitiveness (Craft, 2005; Shaheen, 2010). As such, today's education is re-envisioned as a means of developing human capital by providing young people with innovative and creative skills in addition to imparting knowledge (Craft, 2005; NACCCE, 1999).

In educational contexts, the term "creativity" is frequently discussed (Craft, 2001). Curriculum reforms have been enacted, integrating creativity into educational policies worldwide. In India, there has been a strong emphasis on developing creativity within educational policies and curriculum frameworks. The National Curriculum Framework (NCF) of 2005 underscored the importance of nurturing and promoting creativity in the curriculum. The vision of the National Education Policy (NEP) 2020 aims to enhance educational quality by providing opportunities for creative development, ultimately transforming India into a competitive knowledge society. The focus on fostering creativity and innovation in education is reflected in India's first education policy of the 21st century, the National Education Policy 2020. The policy document envisions "creating a system of education aligned with the aspirational goals of 21st-century education while building upon India's traditions and value system" (NEP, 2020, p. 38). Given the evolving employment landscape, the policy emphasises the importance of building human capital by equipping individuals with critical thinking and creative skills. The National Curriculum Framework for School Education 2023 (NCF 2023) also recognises creativity

as a core component of learning. The framework advocates a pedagogical shift away from rote learning and passive content absorption, encouraging teaching practices that nurture creative thinking and problem-solving skills. It underscores the importance of integrating creativity throughout the curriculum so students are encouraged to think independently and creatively.

The NCF 2005, as well as the policies and commissions before it, have primarily discussed creativity in terms of thinking skills, specifically creative thinking. However, the National Education Policy (NEP) 2020 has taken a holistic approach towards creativity (Sharma & Gupta, 2021). The NEP 2020 has explicitly prioritised the development of the creative potential of each individual. It focuses on developing children's critical thinking and creative skills to adapt to the global ecosystem. This approach aligns with the modern educational perspective on creativity, which views creativity as a potential that every child possesses and a skill that can be developed or nurtured (Lin, 2011). The policy also indicates a commitment to implementing a creative pedagogy. It emphasises that "pedagogy should transform to enhance education by including experiential, holistic, integrated, inquiry-driven, discovery-oriented, learner-centred, discussion-based, flexible and enjoyable approaches towards learning" (NEP, 2020, p.4). As such, fostering students' creativity is one of the fundamental goals of today's education, and teachers are instrumental in accomplishing this goal.

However, past researches indicate that creativity in the classroom is frequently not fostered, despite teachers claiming to appreciate it (Scott, 1999; Beghetto, 2007). Students' creative actions are often disapproved of and regarded as nonconformist. This divergence between the acknowledged worth of creativity and its rarity in educational settings is termed the "creativity gap" by Makel (2009, p.38). Thus, to align with the educational goals of the NEP 2020 and the challenges of the twenty-first century, we need teachers who not only transmit knowledge but also possess the pedagogical skills to foster creativity and innovation in the classroom. Exploring teachers' behaviour that fosters creativity and the influence of teacher attitude towards creative teaching and their self-

efficacy is therefore crucial, as these are the fundamental elements that would determine how creativity is fostered in classroom settings.

1.1 Creativity

The existing literature reveals that creativity is a complex phenomenon, and researchers have taken various approaches to understanding it. Previously, creativity was regarded as a fundamental component of intelligence, predominantly seen as an inherited trait and attributed mainly to a select group of exceptionally gifted individuals (Esquivel, 1995). Later, with the advancement of multidimensional theories of intelligence, creativity has increasingly been recognised as a construct that, while related to intelligence, represents a distinct and separate component of human experience. Though there is no single agreed-upon definition of creativity, it is regarded as an essential process for generating new ideas, resolving problems, and promoting individual self-actualisation (Ezquivel, 1995). According to Simonton (2012), creativity comprises both originality and appropriateness. Beghetto and Kaufman (2014) supplemented this by noting that the environment dictates whether or not to consider something creative, and this context may be social, cultural, or historical.

The 4P's model of creativity, as proposed by Rhodes (1961), is a prominent framework for studying creativity. According to Rhodes (1961), creativity is an interplay of four aspects: (a) creative person- here the focus is on examining the traits and attributes of the creative person; (b) creative process- is concerned with the mental process and operations in the creative process; (c) creative press - it examines the context or the environment within which creativity takes place; (d) creative product - it identifies the outcome of both the process as well as the product. A widely accepted view of the creative product today is that the creative product should be both novel and appropriate.

Glăveanu (2013) modified the Four P's into the Five A's framework of creativity, which is based on sociocultural and ecological psychology and incorporates a "systemic, contextual, and dynamic approach" to understanding the creative phenomena (Glăveanu, 2013, p.69). The Five A’s framework has been conceptualised in the following manner:

Actor - pertains to the Person, and focuses on the personal attributes about their social environment; *Action* - refers to Process and is concerned with the psychological and behavioral manifestation; *Artifact* – pertains to the Product and focuses on the cultural context in which the artifact is produced and evaluated; *Audience and Affordance* – are aspects of the creative environment, the Press and examines the interdependence between creators and a social and material world.

Regardless of varying perspectives and definitions, there is a consensus among creativity researchers that creativity comprises the ability to create something new and distinctive. It is the ability to produce something that is both unique and appropriate.

1.1.1 Approaches to Creativity

Creativity is an undeniably complex phenomenon, and various researchers have approached it with diverse lenses. The following are some of the major approaches that have shaped our understanding of creativity:

a) Mystical approach: Considered to be one of the earliest conceptualisations of creativity, it views the creative process as one that has a spiritual underpinning. Instead of being grounded in science, this approach relies on widely held myths and misconceptions. In this approach, creativity is linked to innate ability and viewed as a source of inspiration, traditionally regarded as a divinely bestowed talent. What counts is the aesthetic outcome, and it is maintained that creativity is something that cannot be taught. It also believes that a scientific approach would be inadequate to study it.

b) Pragmatic approach: Central to the pragmatic approach is the development of creativity rather than gaining an understanding of what creativity is. Critics have pointed to a lack of interest in empirically verifying their claims as a reason to argue against this method (Sternberg & Lubart, 1999). This method, similar to the lateral thinking advocated by Edward de Bono, places greater emphasis on practical application than on theoretical development.

c) Psychometric approach: A psychometric approach to creativity refers to the measurement of creativity as if it were a measurable quality. Creativity is not a rare quality but is possessed by all people, and it can be quantified, investigated or compared in

conventional domains by psychometric means (Guilford, 1950). Problem-solving and creative thinking are generally the conditions that psychometricians evaluate (Torrance, 1974). However, a significant criticism of this approach is the failure to provide a satisfactory description of creativity or an adequate account of the various forms in which creative expression can take.

d) Psychoanalytic approach: Rooted in Freud's foundational theories, the psychoanalytic approach represents one of the earliest major frameworks applied to the study of creativity, emphasising unconscious processes and internal conflicts as central to creative expression (Sternberg & Lubart, 1999). In this view, psychoanalysts view creativity as an embodiment of the struggle between conscious and unconscious processes, in which creative individuals, such as writers and artists, express their subconscious longings through the work that they produce. Psychoanalysts frequently research renowned creative individuals and validate their hypotheses through the use of case study methods.

e) Confluence approach: Researchers who advocate the confluence perspective assert that creativity emerges from the intersection of multiple interrelated factors, rather than from any single trait or ability. Amabile (1983), for instance, described creativity as arising from the integration of domain-specific knowledge and expertise, together with creative skills and intrinsic motivation. As Csikszentmihalyi (1996) explained, creativity results from the dynamic interplay among the individual, the field and the discipline. This framework suggests that six interrelated components— abilities, acquired knowledge, preferred thinking styles, personality traits, motivational factors, and environmental conditions—must converge for creativity to manifest.

f) Cognitive approach: The cognitive approach recognises creativity as a process and is one of the significant areas of creativity research. This approach links creativity to mental processes and seeks to comprehend how the creative thought process occurs. Ferrari et al. (2009) have categorised the cognitive approach according to the following three schools of thought:

i) Phase-oriented studies: studies that take a phase-oriented approach consider creativity to be a process that unfolds throughout several stages, rather than sudden bursts of ideas. The authors cite the Geneplore model (Finke et al., 1992), which distinguishes between a generative phase (the formation of a mental representation) and an exploratory phase (elucidation and validation of ideas), including Wallas's (1926) four-stage model of creativity. The four stages are: a) Preparation, in which all potential outcomes to a problem are considered; b) Incubation, the period in which the problem is not actively considered; c) Illumination, at which point an aha! Moment of insight is experienced, and d) Verification, during which the idea is developed through evaluation and analysis.

ii) Pragmatic methods: Pragmatic approaches to creativity primarily aim to cultivate innovative thinking through the application of diverse tools and methodologies, including Alex Osborn's brainstorming technique and Edward de Bono's Six Thinking Hats framework.

iii) Thinking theory: These studies concentrate primarily on the aspects of an individual's personality and how environmental conditions shape an individual's creative output. These studies examine the personal characteristics of eminent individuals in various fields and attempt to draw connections between factors such as intelligence and creativity, as well as variables like environment and motivation.

1.2 Creativity in Education

Though various approaches towards creativity have been developed by different creativity experts, in education the cognitive approach is dominant as it fits into the general educational approach to creativity, which is based on two assumptions: the first is the belief that creativity can be developed, and the second is the belief that all persons have the potential to be creative (Lin, 2011). In this context, the Four C Model of Creativity by Kaufman and Beghetto (2009) is relevant to educators, as it reveals the variation between different levels of creativity.

Creativity has commonly been studied by focusing on the degrees of creative expression, specifically examining either genius–level creativity, known as "Big-C" creativity, or everyday creativity, referred to as "little-c" creativity. Kaufman and Beghetto

(2009) expanded on this concept by including the "mini-c" and "Pro-c" in what is termed the Four C Model of Creativity (p.6).

The “mini-c” creativity is considered the lowest level of creativity. It relates to the “subjective personal discoveries” – the kind of creativity everyone takes part in daily (Beghetto & Kaufman, 2014, p.2). Since it encompasses the majority of mental operations, the mini-c may not have manifest physical characteristics, but it “serves as the foundational building-block of higher levels of creativity” (Beghetto & Kaufman, 2014, p.3). The second is the “little-c” creativity, also known as mundane creativity. Little-c creativity recognises the creative potential of every individual and focuses on how, at this level of creativity, individuals can solve their everyday problems. Little-c creativity is applicable across all school subjects and everyday experiences, as noted by Lucas (2001, p. 38) and can be nurtured by teachers. The "Pro-c" stands for expert-level creativity that has not yet attained genius status. It is the type of work that is conducted by professionals but is not eminent or has not yet achieved prominence. The term “Big-C creativity” refers to the genius-level of creativity that we frequently see in scientific breakthroughs, new technical creations, and artistic expression (Beghetto & Kaufman, 2014). Feedback is regarded as critical in shaping one's mini-c thoughts into little-c contributions that others can recognise as creative. At the little-c level, focused practice is crucial for moving from everyday creativity to advanced levels of creative achievement. Finally, time is a critical aspect in achieving legendary, Big-C status at the Pro-C level. Big-C creativity is domain-specific and is given to creators and creative achievements after an extended period. However, while levels of creativity vary and processes overlap, creative expression does not always follow a linear trajectory (Beghetto & Kaufman, 2014).

Most educators believe that the little-c and mini-c creativity are relevant in education as they underlie the developmental process of creativity. Beghetto and Kaufman (2014) suggest that the model serves as a developmental framework to understand creativity and help teachers recognise the levels of creativity that are most important in the classroom (i.e., mini-c and little-c), alongside identifying the key elements that foster the progression of creativity from one stage to another. Since educators uphold the belief

that every learner possesses creative potential and that creativity can be fostered through appropriate guidance, the focus naturally shifts to the significance of creative pedagogy in nurturing student creativity.

1.2.1 Creative Pedagogy

Three aspects can be examined when it comes to fostering creativity through education. The first aspect is concerned with *teaching*, particularly how to provide creative and imaginative practices that promote the development of multiple intelligences, higher-order thinking, and possibility thinking, coupled with how to incorporate opportunities for students during the pursuit of exploring and solving problems. The second component is to provide an *environment*, both externally and socially, that is stimulating and encouraging of learners' motivation and their ability to be creative. The third aspect of promoting creativity is *teacher ethos*, which encompasses an open and flexible approach to creative ideas and behaviours, a humanistic approach to student discipline, and support for independent thinking (Lin, 2011).

1.2.2 Characteristics of Creative Pedagogies.

Cremin and Chappell (2021) established seven features of creative pedagogies, namely:

1. Generating and Exploring ideas: As a central feature of creative educational practice, generating and exploring ideas is frequently facilitated by creating an environment that is welcoming of students' ideas, no matter how unconventional they may be, and by creating opportunities within a learning environment that is both stimulating and accepting of their opinions.

2. Encouraging Autonomy and Agency: Teachers must assist learners in developing independence, problem-solving abilities, and being proactive in asserting the power of the learner in their classrooms.

3. Playfulness: Teachers should incorporate an element of playfulness into their students' engagement with the materials, with ideas, and with their actions and behaviours.

4. Problem-solving: Another critical feature of creative pedagogies is the use of problem-based approaches, which involve learners engaging in challenges and focusing on practical solutions, as well as hands-on activities. The objective is to encourage learners to exchange ideas and utilise their imagination to solve problems openly.

5. Risk-taking: Central to fostering creativity is to encourage pupils to take risks, to establish an open environment in which learners can afford to make mistakes and accept failures as part of the learning process. The goal is also to develop resilience in the students. A crucial factor in this is for teachers to exemplify risk-taking in their classroom teaching and learning processes.

6. Co-constructing and collaborating: Co-constructing and collaborating in the creative process implies the teacher and the learners actively working at tasks, with a focus on reinforcing the learners' identity. It includes group work, teachers' ability to model creativity, and to view problems from a learner's perspective. Co-constructing involves a child-centred curriculum where the teacher serves as a facilitator and companion, rather than one in which the teacher controls the pedagogy. It also implies reinforcing the learners' social identity to create a space for learner inclusivity. Group work and collaboration are also key features of creative pedagogies, as they promote dialogue and are recognised as essential life skills.

7. Teacher creativity: A central element in creative pedagogies is for teachers to model creative behaviours. Teacher creativity is seen to be an antecedent to fostering student creativity. Teacher should enjoy the creative process and cultivate their time and minds in dialogue and critical discussions.

It is evident that to foster creativity in education, teachers need to model behaviour that encourages creativity in the classroom. In this context, a detailed description of creativity-fostering teacher behaviour and its components is given as follows.

1.3 Creativity Fostering Teacher Behaviour

Teacher behaviour can be defined as the overt actions of the teacher. It is what teachers do, how they interact and communicate with the students, which facilitates learning and is a key element influencing students' creativity (Pearson, 1989 as cited in Brauer et al., 2024, p. 4). The possibility of the teacher modelling behaviours that will promote student creativity during day-to-day interaction with students is central. Teachers are widely regarded as key players in fostering an environment of creativity and innovation in the classroom. Nevertheless, as pointed out by Esquivel (1995), this took place after the advent of a deeper understanding of creativity and the realisation that creativity is a process. With the realisation that creativity can be taught, due attention was paid to the role teachers play as facilitators of students' creativity. Esquivel (1995) proposed that through their philosophy, attitude, teaching methods, interaction with students, and the instructional climate they set in the classroom, teachers can significantly influence student creativity.

As noted by Soh (2000), a teacher can support creativity directly through engagement with pupils, by rewarding students' creative efforts and outcomes, and by identifying students' creative traits. Through words and actions, the teacher can also have an indirect impact on student creativity by providing a supportive social atmosphere for students. In the social setting of the classroom environment, the teacher's "actions and reactions" are critical factors in giving the required motivation for pupils to develop creative abilities (Soh, 2000, p.118). Thus, creativity-fostering teacher behaviour pertains to how teachers engage with their students' ideas, perspectives, and suggestions throughout lessons, which might impact students' creativity (Soh, 2000).

Cropley (1992) studied creativity-fostering teachers and found that teachers who have an understanding of the creative process lead to increased levels of creativity in students, even if the teachers themselves do not actively pursue it. Teachers who foster creativity engage with their students, rewarding different opinions and perspectives. Creativity-fostering teachers stimulate creative thinking in their pupils, reward diverse thinking, and promote effective problem-solving. Emphasise the value of any ideas for

addressing problems and react to unexpected questions with curiosity and respect rather than annoyance. The teacher fosters a creative classroom climate that empowers students to embrace risk-taking, engage in experiential learning, build mutual trust within groups, develop self-regulation, and navigate uncertainty with confidence (Beghetto & Kaufman, 2010; Piirto, 2010). Teachers who foster student creativity encourage students to develop autonomy in their learning and the ability to think in diverse ways by providing them the opportunity to play with ideas and materials, to think in broadly flexible ways and to solve problems (Cropley, 1992).

1.3.1 Principles of Creativity Fostering Teacher Behaviour

Cropley (1995) listed nine conditions essential for teachers to foster student creativity in the classroom. Building on Cropley's work, Soh (2000) developed the Creativity Fostering Teacher Behaviour Index (CFTIndex) to assess the extent to which teachers exhibit behaviours related to these principles. The nine principles are:

(1) Independence: Promoting students to learn on their own.

(2) Integration: With a cooperative and socially integrating form of teaching.

(3) Motivation: Motivate students to learn the facts which serve as a base for divergent thought.

(4) Judgement: Delay judgment on students' ideas until they have been fully developed and well-articulated.

(5) Flexibility: Encouraging flexible thinking.

(6) Evaluation: Encouragement for the practice of self-appraisal in students.

(7) Question: Taking students' suggestions and questions seriously.

(8) *Opportunities*: Providing students with opportunities to work with various materials in multiple conditions.

(9) Frustration: Equipping students to deal with frustration and work through failure, giving them the confidence to try the new and unforeseen.

1.3.2 Approaches to Foster Student Creativity

Soh (2017) identified three approaches through which teachers foster student creativity: social modelling, immediate reinforcement, and the ecological approach.

a) Social modelling: The first approach is through social modelling, which enables students to learn creativity by imitating their teachers' behaviour, making it particularly applicable to young learners who integrate social modelling into their learning process. When teachers behave and do things creatively, it is likely for students to observe and act creatively. This observation and emulation of teacher behaviour, where the teacher serves as a behavioural model, most commonly occurs in the classroom, where there is constant interaction between students and teachers. However, the limitations of social modelling, as identified by Soh (2017), are that it is not common to come across creative teachers. Even if a teacher has a creative outlook, they often have to adhere to conventional teaching methods, which are oriented towards convergence and the prescribed curriculum. Another limitation is that not every teacher may be a role model to their students, and there may not be an emotional bond between the teacher and the student, thus leaving fostering creativity through social modelling uncertain.

b) Immediate reinforcement: The second approach to foster student creativity involves providing immediate reinforcement when students demonstrate creativity. To foster student creativity, teachers need to monitor their students' creative behaviours and provide immediate reinforcement. However, Soh (2017) opines that teachers often perceive students' creative behaviour as disruptive, which leads them to dislike and punish them for their creative activities. This issue frequently arises in schools, where teachers often penalise students for engaging in creative activities. Classrooms that prioritise and reward convergent thinking often result in a dearth of creative behaviours among students. Teachers often fail to give timely reinforcement to students; as a result, these creative behaviours are less likely to recur and may even disappear without reinforcement.

c) Ecological approach: A third way to foster student creativity is to put students in an environment that encourages creativity. This necessitates the teacher behaving in a manner that is known to promote creativity. According to the author, the ecological approach to

enhancing student creativity in the classroom overcomes the constraints of the previously mentioned social modelling and reinforcement methods, as it is not subject to the teacher's creativity, positive social-emotional relationships, or the requirement that the teacher define creative behaviours. This prevents the misinterpretation of students' creative behaviours as disruptive. Thus, creativity is fostered in the classroom ecology when it possesses the necessary characteristics and is not restricted by the teacher's and students' spontaneous creativity.

1.3.3 The Meta-Creativity Model of Teacher Behaviour that Fosters Creativity

The meta-creativity model, developed by Brauer et al. (2024), offers a comprehensive framework for fostering student creativity. The model comprises five principal dimensions that promote creativity: Affective, Cognitive, Behavioural, Metacognitive, and Creativity-in-Action dimensions, as well as an Uncertainty dimension. These dimensions are mutually connected and interdependent, with many themes building on and from one another. The authors believe that the meta-creativity model applies to students from all socio-cultural backgrounds and provides teachers with a framework for teaching creativity from a macro perspective. A concise discussion of the model is given below.

a) The Affective Dimension

The affective dimension of fostering creativity encompasses teacher behaviours aimed at tackling students' emotions as they participate in the creative process. This dimension encompasses various creativity-fostering teacher behaviours, including establishing a classroom environment where students feel secure in taking risks and expressing ideas without fear of judgment from peers or teachers. Teachers who promote creativity establish relationships with students that support creative development and enhance their creative self-efficacy, thereby helping students manage their emotions. They facilitate the development of students' capacities to manage ambiguity, accept uncertainty, and engage in deliberate practice of creative process skills beyond their comfort zones. Creativity-fostering teachers enable students to engage with their passions, thereby facilitating genuine creative expression that is also personally meaningful to them.

b) The Cognitive Dimension

The cognitive dimension of creativity fostering encompasses teacher behaviours that cater to "students' creative thought processes" (p.12), such as discovering new information, critically analysing existing ideas, and engaging in convergent thinking. Teachers who foster student creativity enable learners to develop skills in generating creative output within a particular field. They leverage students' curiosity to explore ideas and problems across and within disciplines. Teachers are instrumental in nurturing student creativity by promoting the exploration of ideas, critical inquiry, and engagement with diverse perspectives, including lateral and possibility-oriented thinking. This fosters flexibility and adaptive thinking, enabling students to develop expertise and skills in a domain.

c) The Behavioural Dimension

The behavioural dimension of creativity fostering involves teacher behaviours that facilitate student engagement in the creative process, helping students understand how to initiate and participate actively, both individually and collaboratively. Teachers who foster creativity serve as role models for creative behaviour, and engage in creative teaching that arises out of their passion. Teachers who foster creativity encourage students to experiment, focus on process and learning, and embrace failures. They support creative group processes, foster a sense of community, and encourage peer feedback, empowering students to take responsibility for their own creative development.

d) The Metacognitive Dimension

The metacognitive dimension of creativity fostering encompasses all teacher behaviours that stimulate students' engagement with their creative abilities, clarify students' perceptions of creativity, and assist students in comprehending their paths towards creative development. Teachers who foster creativity encourage students to reflect on their creative processes, overcoming misconceptions about creativity being talent-based or a process involving a single step. They develop creative competencies and personal habits, such as persistence, focus, observational skills, reflexivity, and curiosity-driven learning approaches.

e) The Creativity-in-Action Dimension

The creativity-in-action dimension of fostering creativity includes teacher behaviours that improve the authenticity and significance of learning to engage in creative activity, offering students substantive experiences of creative processes within and over multiple domains and engaging students in creative tasks that are personally meaningful to the student and put creativity in a context that has real-world practical implications

f) The Uncertainty Dimension

The uncertainty dimension of creativity-fostering teacher behaviours encompasses the strategies teachers employ to manage the uncertainty, confusion, and stresses inherent in teaching and learning creativity, thereby helping students adapt to the unpredictable, evolving, and often contradictory demands of creative processes. Teachers who foster creativity adjust and innovate to facilitate creative learning during transitions and to navigate the tensions of students' creative processes. Teachers who routinely foster creativity administer both summative and formative assessments in line with clearly stated desired creative learning goals and their creativity-fostering teaching behaviour.

The five dimensions of the meta-creativity model— affective, cognitive, behavioural, metacognitive, and creativity-in-action— are constantly subjected to the sixth dimension of uncertainty as a consequence of changing instructional and learning requirements and tensions of the creative processes. These contradictions must be actively monitored, negotiated, and balanced by teachers who are empathetic and reflective, creative practitioners who guide students' growth journeys, act as credible role models, and are perpetual students of the creative process (Brauer et al., 2024).

1.3.4 Influential Factors of Creativity Fostering Teacher Behaviour

Creativity fostering goes beyond traditional instruction, creating environments where curiosity, imagination, and critical thinking can thrive. While many view creativity in teaching as an innate quality, research indicates that it is influenced by several interconnected factors, including personal attributes, professional experiences, and contextual influences (Wright, 2013).

A study by Hong et al. (2012) studied creative teachers and identified several key elements that consistently define creativity-fostering teachers. Their findings highlight how personal qualities, cognitive styles, family backgrounds, career paths, pedagogical beliefs, and institutional support work together to foster creative teaching practices. The following sections outline these essential factors, providing a comprehensive understanding of what motivates educators to teach creatively and how these behaviours can be encouraged in various educational settings.

1. Personal Quality - Consistent with the long-held belief that personality traits affect creative development in individuals (Amabile, 1988; Sternberg, 1988; Esquivel, 1995), Hong et al., 2012, discovered creativity fostering teachers to have certain common personal qualities like an unyielding attitude in the face of adversity, a willingness to grow, an openness to new experiences, and faith in one's abilities. Creativity-fostering teachers have a powerful drive toward active learning, rely on instinct, have high self-confidence, and use humour frequently.

2. Thinking Style: Creativity-fostering teachers have rich ideas and can solve problems using different strategies. They were very skilled at applying everyday events or objects to their lesson plans or relating those experiences within the classroom setting.

3. Family Factor*:* Research indicates that teachers who actively foster creativity often come from family backgrounds characterised by respectful and nurturing parenting. These parents typically promote autonomy and responsibility, offering consistent support for their children's ideas and behaviours, even when they deviate from conventional norms. Such findings align with previous studies that highlight the role of democratic and empathetic parenting styles, open parent–child communication, and the encouragement of curiosity as key contributors to creative development.

4. Education and Career Experience: The majority of teachers demonstrated strong motivation and perseverance in their learning journeys. Furthermore, they possessed diverse academic qualifications and professional experiences, contributing to a rich and multifaceted educational perspective. The creativity-fostering teachers were profoundly influenced by their mentors and felt that they owed their students the best possible

guidance, owing to the impact their teachers had on their own education. Consequently, these teachers demonstrated a strong commitment to implementing creative teaching strategies, perceiving it as a core professional responsibility. This outcome underscores the influential role mentors play in fostering creativity.

5. Teaching Belief: The teachers' teaching is directly influenced by their teaching beliefs, and they view creative teaching as a tool that can assist them in realising their teaching ideals. Depending on their area of expertise, teachers' expectations of their teaching duties also varied. For example, teachers in lower grades tended to emphasise helping students develop into trustworthy, responsible individuals who demonstrate compassion. Teachers aspired for their students to enjoy learning and develop critical thinking skills. Therefore, when selecting materials and methods, they would prioritise practicability and adaptability.

6. Personal Effort: Teachers who have participated in professional development trainings on creative teaching strategies are more likely to model receptive attitudes and behaviours toward students' creative work. According to Simplicio (2000), teachers who successfully incorporate creative strategies into their day-to-day classroom instruction invest extensive time in pre-lesson planning and preparation. As a result, it is essential to develop teachers' creative personalities and abilities, but it may be equally crucial to train them in specific creative teaching techniques. Therefore, novice teachers entering the field of education must be mentally prepared for the fact that it will take them some time to master the art and skill of fostering creativity.

7. Motivation: Teachers consistently demonstrated high levels of intrinsic motivation, independent of the school environment. Their deep affection for both their students and the teaching profession was evident, accompanied by a pronounced enthusiasm for instructional engagement and classroom interaction. To attract students' attention or to improve their teaching, they would do whatever it took to develop novel and engaging lesson plans. Their educational ideals motivated them to teach creatively, and their motivations in turn reflected their educational ideals. This consistency between educational ideals and the teaching motivations of teachers suggests that educational

ideals can be modified during the teacher preparation stage. That teacher preparation institutions can therefore foster creative teaching beliefs. In addition, personal effort can foster teaching beliefs and motivation.

8. Teacher's Knowledge: Teachers demonstrated both intrinsic and extrinsic forms of knowledge essential for the generation of novel ideas and the realisation of creative potential. Drawing upon their practical expertise, they emphasised that instructional strategies and pedagogical decisions were largely shaped by insights gained through everyday classroom experiences. As a result, if they were confronted with a real situation, they would be aware of the most effective and appropriate actions to take, given the circumstances, and they would also be able to predict how the students would react accurately.

9. Environmental Factor: The majority of schools had an organisational culture that respected teachers' professional autonomy. In terms of administrative support, nearly half of the teacher participants reported that their teaching had been significantly influenced by a school administrator (director, principal) in the past, and they all agreed that ensuring full empowerment and providing active support were what motivated them to engage in creative teaching and guided their professional development. Teachers agree that collegial interactions may exert both beneficial and adverse effects on the implementation of creative teaching practices. However, most agree that member interaction in the teaching group has value and that it has a positive influence on the results of brainstorming, the generation of creative ideas, the employment of teaching strategies, and professional growth. They also emphasised the importance of partnership and how discussion and feedback between each other helped them grow together.

Nurturing creativity necessitates an environment that encourages and rewards creative thinking. As Sternberg (2006) pointed out, an individual may have all the inherent potential to be creative. However, in the absence of an environment that supports and rewards creative risk-taking, an individual's natural creativity may never be fully realised. Teachers' responses to students' ideas and perspectives in the teaching learning process can be predicted to influence students' later effort and propensity to participate in the

creative process. Premature and particularly unfavourable teacher response, on the other hand, will deter pupils from future creative inquiry. A teacher's ability to exhibit creativity fostering behaviour in their daily interactions with students puts them in a critical position to foster the creativity of their students (Soh, 2015).

Although many teachers strive to promote children's creative potential, their approaches to supporting, developing, and nurturing creativity in the classroom vary (Flieth, 2000). The lack of 'capacity-building behaviours' in some teachers suggests they may be unaware of the role that their behaviour may play in either 'facilitating or impeding the creativity of the learner' (Soh, 2015; p.2). Thus, teachers need to develop the attitude, the knowledge and skills towards creative teaching to foster student creativity. Hence, a detailed description of creative teaching, including its components, strategies, and attitude, is provided as follows.

1.4 Creative Teaching

Creative teaching has been interpreted differently by various researchers, highlighting creativity occurring in schools or the creativity in teachers' actions (Toivanen et al., 2013). Teresa Cremin (2015) argues that creative teaching is centred around the creative practices of the teacher. It involves teachers adapting new ways to engage students and enhance classroom efficiency. According to Mayer (1989), when a teacher teaches subject matter in a way that enables students to transfer their learning to creative problem-solving situations, this is known as creative teaching. It is the "instructional techniques that are intended to help students learn new material in ways that will enable them to transfer what they have learned to new problems" (Mayer 1989, p.205). The National Advisory Committee on Creative and Cultural Education views creative teaching as "using imaginative approaches to make learning more interesting and effective" (NACCCE, 1999, p. 89). This approach includes the use of imaginative and innovative methods that cultivate learners' creative potential (Lin, 2011).

1.4.1 Dimensions of Creative Teaching

Findings from studies that investigated the primary elements of creative practice reveal that creative teaching encompasses the teacher's characteristics, the pedagogical methods they adopt, and the beliefs they uphold in their classrooms. Three interconnected dimensions of creative teaching are highlighted by Cremin et al. (2009). The authors believe that learning occurs within a specific cultural and social setting and emphasise three intertwined elements of creative teaching: a). Personal qualities - the teacher's unique talents and interests. b). Pedagogy - the methods of instruction they use. c). Ethos - the general atmosphere of the classroom and school.

1. Personal Qualities: Personal characteristics of a teacher are likely to have a significant impact on their teaching style and effectiveness. Cremin et al. (2009) found that a commitment to the pupils, a love of learning, an openness to new experiences, risks, and an awareness of students' backgrounds and interests, a commitment to tailor lessons

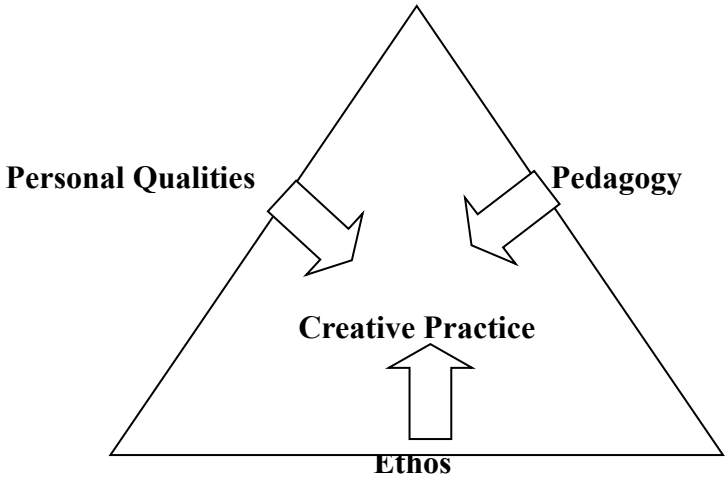


Figure 1: Dimensions of creative practice (Cremin, Barnes, & Schoffham, 2009)

to each student, a capacity for playful interaction, and a solid foundation of knowledge were all crucial for creative teaching. According to research conducted by Bramwell et al. (2011), teachers' personality, motivations for being creative, and personal values that

shape their creative teaching play a significant role in shaping their creative practice, which is briefly discussed below.

Personality characteristics: Personal intelligence, both intrapersonal and interpersonal, was displayed by creativity-fostering teachers. Teachers' ability to reflect on their own intrapersonal attributes and respond sensitively to the interpersonal characteristics of those around them played a role in facilitating both their own learning and that of their students.

Motivation: Teachers who practice creative teaching are those who are intrinsically motivated, persistent, and have a passion for their work. Their creativity was centred on pursuits that they, themselves, judged to be essential, rather than on extrinsic motivators such as bonus pay or paid time off.

Value: Values were the sources of intrinsic motivation and creativity in teachers, and they helped teachers make decisions. Teachers were less interested in rote learning and more interested in learning what was useful, relevant, practical, and authentic to the learners. The most common values were learning and growing as a person, having good relationships with coworkers, and being involved in the community.

2. Pedagogy: Teachers who practice creative teaching employ many different strategies, including: using a variety of teaching approaches, identifying entry points for individuals, connecting ideas, connecting students' lives to the curriculum, using information and communication technology (ICT), embracing a questioning position, encouraging students to ask questions, fostering independence and responsibility, establishing a distinct learning objective, fostering teamwork and collaboration. Palaniappan (2004) believes that creative teaching can be viewed in terms of originality, fluency, flexibility, and elaboration, and can be judged by the types and range of teaching strategies, methods, and materials developed.

3. Ethos: The ethos component of creative teaching revealed that students thrive in an environment that fosters positive engagement, encourages students to feel safe, stimulates curiosity and risk-taking, allows students to work with suitable teaching and learning resources, and is influenced by the leadership of the school (Cremin et al, 2009).

These key themes are also supported by Davies et al.'s (2013) systematic review of literature, which identified the following creative learning environment.

a. The physical environment: Students should be free to use the space in a classroom in a variety of ways to foster their creativity. Openness should pervade the atmosphere, and varied spaces should be utilised to stimulate new ideas. Displays of students' unfinished work are an additional component of the visual environment that plays a significant role in inspiring pupils' creativity.

b. Availability of resources and materials: In learning activities, there is strong evidence from several studies that giving students a wide range of materials, tools, and other resources can help them be more creative. Visual learners can significantly enhance their creative capacities through the integration of Information and Communication Technology (ICT), particularly tools like interactive whiteboards.

c. Utilising the outdoor environment: Getting students out of the classroom and having them work in the outdoors can help them develop their creativity. This may be due to factors such as ownership and collaboration, as outside learning activities were more likely to entail collaboration.

d. The pedagogical environment: The task assigned to the students should be authentic and clear that it is worth doing. When students are encouraged to take risks with the right mix of structure and autonomy, their creativity grows. It is also vital that students are given opportunities to explore, imagine, and have some say over what they learn.

e. The role of play: It is seen that incorporating "playful" or "games-based" instructional strategies into classrooms for students of all ages fosters the growth of creative abilities.

f. Use of time: Creative productivity is best served by a flexible use of time. For creative results, young children require time to engage in an activity and complete work at their own pace.

g. Relationships between teachers and learners: Teachers must develop a conducive environment while responding to children's creative activity. It has been found that students prefer pedagogical interactions characterised by mutual respect. Dialogue

seems to be crucial in pedagogy, and the best environment for creativity seems to be one in which people talk to each other, negotiate disagreements, and compare ideas. Creative attitudes, such as flexibility, freedom, and open-endedness, were crucial components in fostering creativity. As part of creative learning, teachers should also model the ability to adapt to change and act with spontaneity.

h. Use of other environments beyond the school: It is beneficial to a child or young person's creative development by taking them out of the traditional classroom for some time to places like museums and galleries.

Thus, the three elements of creative teaching, i.e pedagogy, teacher's personal qualities, and classroom ethos, are interrelated and are not exclusive. Researchers believe that it would be impossible to explore classroom ethos without considering pedagogy and the teacher's personal qualities, and thus, there is an overlap (Cremin et al., 2009). As Palaniappan (2004) further states, the creative teaching product results from the creative teaching process and reflects both the creative teacher characteristics (person) and the environment in which the creative teaching operates (ethos).

1.4.2 Creative Teaching Strategies

Horng et al. (2005) studied award-winning teachers and, through in-depth interviews, classroom observations, and examination of lesson plans, identified the following strategies as most effective for creative teaching.

a) Student-centred learning: In their creative teaching, teachers used student-centred methods. Facilitators, rather than lecturers, help students engage in self-reflection, group discussions, role-playing, dramatic presentations, and group activities. Throughout the class, teachers serve as learning partners, inspirations, and guides, while students transform from passive listeners to observers, performers, and co-learners. The teachers always informed their students of the rules to follow and the assignments to complete before the start of class. This ensured that cooperative learning would be efficient and effective.

b) Use of multi-teaching aids: Creative teachers are adept at utilising a variety of instructional aids to supplement their lessons. They utilised creative teaching aids, such as

a paper crusher, a toy block, a hammer, a student writing script, a power-point, a computer, and multimedia, to stimulate students' thought processes, broaden their perspectives, and promote further discussion.

c) Class management strategies: Teachers exhibited sophisticated classroom management skills, fostered cordial interactions, and treated students with sensitivity to their uniqueness and specific requirements. When learners share their ideas, they refrain from interrupting or judging right away. Instead, they gave advice, asked more open-ended questions, or told stories from their own lives as examples. Humour helps teachers and students connect, making the classroom a more relaxed place to learn.

d) Connection between teaching content and real life: Teachers incorporated real-world events and student concerns, issues that students are likely to encounter in the future. Learners are prompted to exchange personal experiences with their peers, fostering dialogue, reflective responses, and growth of critical thinking skills. Integrated activities help students express and apply their knowledge in everyday life, find real-world examples to demonstrate what they have learned, and make connections between their learning and life experiences. Teachers indicated that creative ideas are also derived from real-world experiences. The crucial point is that teachers must be sensitive to feel, discover, think, and translate these experiences into instruction.

e) Open questions and encouragement of creative thinking: In lesson plans and supplementary materials, teachers included open-ended questions that stimulated students' creative thinking. Esquivel (1995) identified open-ended questions as a feature of creative teaching. Furthermore, creative teachers encourage students to be imaginative and creative during group discussions.

1.4.3 Barriers to Creative Teaching

The discourse surrounding creativity in education is prevalent, particularly in an era where machines increasingly outperform humans in routine cognitive tasks. The ability to think divergently, generate novel ideas, and adapt flexibly has become a defining marker of human potential. Hence, the role of education in fostering students' creativity is expected, as creativity is a critical competency across disciplines, essential for problem-

solving, innovation, and lifelong learning. Nonetheless, previous studies indicate that creativity in the classroom is frequently not fostered, despite teachers claiming to appreciate it (Scott, 1999; Beghetto, 2007). Students' creative actions are often disapproved of and regarded as nonconformist. This divergence between the acknowledged value of creativity and its scarcity in educational settings is referred to as the "creativity gap" by Makel (2009, p.38).

Some of the most frequently cited obstacles to creativity include the pressure on teachers to adhere to standardised curricula and assessments. The large class size presents challenges for teachers in effectively addressing students' creativity. Teachers frequently perceive creativity as an isolated aspect that requires nurturing, rather than incorporating it into the broader curriculum. Consequently, they regard it as an extra obligation added to their already extensive duties (Beghetto, 2007; Kim, 2008). Another barrier to creative teaching in the classroom is a lack of training related to creativity. Teachers often struggle to incorporate innovative strategies into their classrooms. Teachers are often unfamiliar with explicit concepts of creativity and how the creative process works (Fleith, 2000; Kim, 2008).

While teachers frequently identify standardised tests, large classrooms, and accountability as obstacles to creative teaching, some researchers challenge this perspective. They argue that creative teaching and various elements of teacher accountability can complement one another by integrating creative techniques into the teaching process (Schacter et al., 2006). Austin (2021) found that the curriculum contributed little to nurturing creativity in classroom settings; instead, it was the teacher's pedagogical expertise that significantly influenced the cultivation of creative thinking among students.

1.4.4 Attitude towards Creative Teaching

Attitude has been a fundamental element of social psychology, as the objective of psychology is to examine behaviour, and attitudes are believed to impact behaviour. Attitude has long been viewed as a predisposed psychological state shaped by individual experience, which guides one's responses to relevant situations and stimuli (Allport, 1935,

as cited in Arul, 1995). It encompasses the internal processes that shape how individuals interpret and react to the social world, influencing both observable and potential behaviours (Fishbein, 1967). Attitudes not only affect how people perceive various contexts but also steer their behavioural responses (Pickens, 2005). Psychologically, attitudes represent evaluative tendencies toward people, objects, or situations, ranging along a spectrum of approval or disapproval (Eagly & Chaiken, 1993). Thus, Attitude is a personal disposition that varies among individuals, influencing their reactions to objects, situations, or ideas in ways that can be categorised as either favourable or unfavourable. Attitudes are also characterised as non-innate, which can be learned and are relatively stable but are changeable (Olufemi, 2012). Attitude influences how we perceive a situation, as well as how our behaviour is directed towards the situation or object (Pickens, 2005, p.44)

The development and expression of attitudes occur at the cognitive, emotional, and behavioural levels (Eagly & Chaiken, 1993; Wood, 2000; Pickens, 2005). The cognitive aspect of attitude reflects the beliefs and perceptions regarding particular facts, objects, and occurrences. The affective (feeling) aspect describes emotional experiences and reactions to something; it reflects one's feelings toward different facts and situations. In terms of the behavioural component, it shows a person's likely response to a given situation, which is influenced by their beliefs and preconceptions. In the view of Mensah et al. (2013), the three components of attitude—the cognitive, affective, and behavioural components are interconnected, and they cite the following example to explain it. An individual may cognitively perceive a snake as a perilous reptile; upon encountering a snake, the visual stimulus may elicit fear, prompting the individual to either flee or scream. While most attitudes encompass all three components, they may be more firmly established in either the cognitive or the affective aspect. It is also feasible that not all three aspects are consistently present for an attitude to exist (Eagly & Chaiken, 1993).

Pickens (2005) asserts that attitudes are established through "learning, modelling others, and our direct experiences with people and situations" (p. 47). The decisions a person makes, the actions or behaviours one takes, and the selective memories an

individual retains can all be influenced by their attitude. Attitudes are subject to variation in intensity, and they can be quantified and modified. Attitude influences how we perceive a situation, as well as how our behaviour is directed towards the situation or object (Pickens, 2005, p.44). It can be asserted that a person's attitude is the key determinant of their performance regarding a specific task. Among the various factors contributing to effective teaching, attitude plays a vital role in motivating teachers both intrinsically and externally. Teachers' positive attitude towards a task fosters their desire to accomplish that task efficiently.

Building on the previous discussion, attitude towards creative teaching is the predisposition of individual teachers to evaluate creative teaching practices either favourably or unfavourably. This includes their cognitive, affective, and behavioural inclinations toward implementing or supporting innovative, flexible, and student-centred teaching strategies in the classroom. Creative teaching encompasses the deliberate and imaginative efforts of teachers to apply suitable instructional strategies and solutions that enhance student engagement and facilitate the achievement of educational objectives. Teachers' attitudes toward such practices play a crucial role in fostering a classroom environment that supports and cultivates creativity. It is therefore imperative to explore teachers' attitudes towards creative teaching, along with teacher self-efficacy, as teacher self-efficacy beliefs are influential factors that influence teacher behaviour and will impact their creative task initiation or avoidance.

1.5 Self-Efficacy

Bandura's (1997) social cognitive theory serves as the foundational framework for understanding the concept of self-efficacy. An essential aspect of social cognitive theory is human agency, which suggests that although a variety of factors influence human behaviour, individuals are capable of and do have some control over what happens to them. Human agency is an individual's deliberate decision to take action to achieve a specific goal. Three distinct sets of factors contribute to the formation of individual human agency: external influences, our behaviours, and internal personal factors, including cognitive, affective, and biological processes. Bandura (1997) coined the term triadic reciprocal

causation to refer to these three sets of variables. Each of these three distinct factors is causally related to the other two in a bidirectional manner. People, according to social cognitive theory, are competent agentic operators who have control over what they do and contribute to what happens to them. Human agency functions within a causal system that is interdependent and involves triadic reciprocal causation (Bandura,1986). While the interaction and effect of these three major groups of determinants vary for different events, under different conditions, and at varying paces, they all have a significant impact on our self-perceptions, decisions, and behaviour.

Albert Bandura (1997), in his work, Self-Efficacy: The Exercise of Control, defined Self-efficacy as "beliefs in one´s capabilities to organise and execute the courses of action required to produce given attainments" (p.3). According to Bandura (1997), self-efficacy can influence a person's task initiation and persistence when they have sufficient levels of skill and motivation. Efficacy beliefs can stimulate behaviour initiation and persistence when strong, but stimulate behaviour avoidance when weak. It represents the assumption that by taking adaptive action, one can manage demanding environmental demands. Self-efficacy is concerned with personal skill values, which are assessments of one's ability to perform specific tasks. People's feelings, thoughts, and actions are influenced by their self-efficacy (Bandura, 1997). Research has shown that a high sense of personal efficacy is associated with improved social integration. A strong sense of competence fosters cognitive processes and success in various contexts, including decision-making quality, goal-setting, and academic achievement (Maddux, 1995; Bandura, 1997, 2001). Beliefs about efficacy differ in their strength and specificity across different domains of functioning. The results of a particular course of action may be positive or negative in terms of physical, social, and self-evaluation (Bandura, 1997). Self-efficacy refers to a person's understanding of their competence rather than their actual level of success. Self-efficacy is concerned with one's knowledge of competence rather than one's level of competence. This is a crucial distinction because people often overestimate or underestimate their actual abilities, and these judgments can significantly impact the actions they take or the effort they put forth in those actions (Tschannen-Moran et al.,

1998). Thus, self-efficacy pertains to an individual's judgment about their capacity to utilise their current skills to accomplish tasks, rather than a measure of the skills themselves. The three fundamental components of self-efficacy are eloquently articulated by Gist and Mitchell (1992). They claim that:

i. Self-efficacy is a thorough description or judgement of one's perceived capacity for performing a particular task, and the knowledge used to shape this judgement comes from the person, the task, and others in the organisation.
ii. Second, one must be sufficiently motivated to make this judgement, so self-efficacy often has a motivational aspect.
iii. Finally, self-efficacy is a dynamic construct that changes over time, particularly as a result of new experiences and knowledge acquired, and the dynamism of this construct increases with training.

1.5.1 Sources of Self-Efficacy

There are four primary sources of self-efficacy identified by Bandura (1997), which are discussed below.

1. Mastery Experiences: The most important contributor to a self-efficacy assessment is mastery experience. An interpretation of a successful performance raises the efficacy expectations, which leads to the assumption that subsequent performances will be successful. The assumption that one's performance was a disappointment reduces efficacy beliefs, leading to the likelihood that subsequent outcomes will also be incompetent. Therefore, a previous success with a skill is likely to lead to future success through mastery experiences.

2. Vicarious Experiences: The second way to develop and reinforce self-efficacy, though not as powerful as mastery experiences, is through the vicarious experiences provided by social models. It refers to the process of developing high or low self-efficacy vicariously through the performances of others. Additionally, it is referred to as modelling, which is defined as "If they can do it, I can do it as well". When individuals witness another's success, their self-efficacy increases; when individuals witness another's failure, their self-efficacy decreases (Tschannen-Moran et al., 1998). When an individual sees themselves

as similar to the model, modelling is an effective process. Bandura (1977) posits that the observer's self-efficacy is significantly influenced by how closely they identify with the model; stronger identification amplifies the model's impact on the observer's efficacy beliefs. If a model that the observer has a positive association with does well, the observer's efficacy increases. On the contrary, a model that fails leads to a decrease in observers' efficacy expectations (Tschannen-Moran et al., 1998).

3. Social Persuasions: The third source of belief reinforcement is direct encouragement or discouragement from another person. Although social persuasion is unlikely on its own to produce significant and durable increments in self-efficacy, it can facilitate competent performances to the degree that the gain in self-efficacy induced by persuasive means is sufficient to motivate one to attempt a task, to adopt new strategies, or to exert the effort needed to be successful (Bandura, 1982). For example, a teacher can increase students' self-efficacy through credible communication and feedback, or motivate them to give their best effort. While social persuasion can contribute to the development of self-efficacy beliefs, it remains insufficient on its own. This limitation arises because exaggerated perceptions of capability—shaped solely by external encouragement—are often contradicted by unsatisfactory performance outcomes, thereby reaffirming the primacy of personal experience. Though not as powerful as mastery or vicarious experiences, verbal judgments from others do affect individual perceptions of efficacy (Pajares, 1997).

4. Physiological Feedback: The final source of self-efficacy for individuals is physiological feedback. Individuals judge their capabilities based on physiological cues and emotional state. People often exhibit distressing symptoms, such as aches, pains, fatigue, fear, and nausea, during stressful situations. They interpret these stress reactions and tensions as indicators of an individual's susceptibility to poor performance. Positivity increases self-efficacy, while pessimism decreases it. Finally, individuals' physiological and emotional states, such as stress, tension, stamina, fatigue, joy, excitement, and mood, all influence their behaviour. However, the intensity of physical and emotional reactions is not as critical as how those reactions are judged and interpreted (Bandura, 1995).

1.5.2 Dimensions of Self-Efficacy

There are two dimensions of self-efficacy: *efficacy expectancy*, which refers to an individual's belief in their ability to perform a task successfully, and *outcome expectation*, which relates to their belief that the task will produce the desired result (Bandura, 1977). The efficacy question is this: Am I able to organise and execute around the actions needed to achieve a certain level of performance? Whereas, the outcome question is: what happens if I do the thing and achieve that level? First are the efficacy expectations that help form the outcome expectations. Outcome expectancies are positive or negative reinforcements of a specific behaviour, that can be tangible or intangible, such as rewards, recognitions, punishments, criticism or personal evaluation (Bandura, 1986, 1997).

1.6 Teacher Self-Efficacy

With Rotter's (1966) work as a theoretical foundation, teacher self-efficacy was first envisaged by the RAND (Research and Development, United States of America) researchers as the degree to which teachers believed they could control the reinforcement of their behaviour, that is, whether control of reinforcement lay within themselves or in the environment. Motivation and success of students are thought to be important reinforcers of teaching behaviours. As a result, teachers with a high degree of efficacy assumed they had a strong influence over student success and motivation (Tschannen-Moran et al., 1998).

Bandura's (1977) work provided a second conceptual strand of theory, establishing teacher self-efficacy as a cognitive mechanism through which people construct assumptions about their ability to perform at a given level of achievement (Tschannen-Moran et al., 1998). These values have an impact on the effort people put forward, the length of time they persevere in the face of adversity, their resilience in the face of setbacks, and the level of stress they experience while dealing with difficult circumstances.

Building on Bandura’s two-component model of self-efficacy, Gibson and Dembo (1984) delineated teacher efficacy into two dimensions: General Teaching Efficacy (GTE), reflecting teachers’ beliefs in the modifiability of student outcomes despite contextual constraints such as socioeconomic background and institutional factors; and

Personal Teaching Efficacy (PTE), representing teachers' confidence in their instructional effectiveness. However, subsequent research by Guskey and Passaro (1994), using a revised efficacy scale, challenged the validity of this dichotomy, revealing that perceptions of influence on student learning were predominantly associated with personal rather than general.

Bandura (1997) further clarified conceptual distinctions by contrasting perceived self-efficacy with Rotter's (1966) locus of control framework. He argued that self-efficacy pertains to one's belief in one's capability to execute actions that lead to desired outcomes. At the same time, locus of control involves assumptions about causality between behaviour and effects. Empirical evidence demonstrated that these constructs have minimal overlap, with self-efficacy emerging as a more robust predictor of behaviour than locus of control (Tschannen-Moran et al., 1998). Bandura (1997) emphasised that self-efficacy items must directly reflect individuals' beliefs in their capability to attain specific performance outcomes. He advocated for domain-specific multidimensional scales, proposing a 30-item teacher self-efficacy instrument encompassing seven dimensions: self-efficacy over decision-making, control of school resources, instructional effectiveness, classroom management, parental and community engagement, and the ability to foster a favourable school climate.

Drawing on prior research, Tschannen-Moran, Woolfolk Hoy, and Hoy (1998) proposed an Integrated Model of teacher efficacy that synthesises Bandura's four sources of efficacy beliefs—mastery experiences, vicarious experiences, social persuasion, and physiological/emotional states. Their framework underscores the contextual and task-specific nature of teacher efficacy, suggesting that educators' self-perceptions are shaped not only by personal attributes (e.g., knowledge, experience, pedagogical skill) but also by the demands of the instructional environment. Teachers evaluate their efficacy by weighing these challenges against available supports. To operationalise this construct, the authors developed the *Teachers' Sense of Efficacy Scale*, which comprises three core dimensions: efficacy in student engagement, efficacy in instructional strategies, and efficacy in classroom management.

Recognising teacher self-efficacy as a multifaceted construct, Skaalvik and Skaalvik (2007) developed a scale consisting of six subscales: instructional practices, meet individual student needs, student motivation, classroom discipline, collaboration with colleagues and parents, and the ability to handle change and challenges. Later, based on the self-efficacy construct developed by Bandura, several investigators have developed scales to measure teacher self-efficacy, ranging from two dimensions (Sharma & Kaur, 2017) to seven dimensions (Paul & Devi, 2012).

The early conceptualisations of teacher self-efficacy primarily focused on classroom teaching tasks, emphasising instructional strategies, classroom management, and student engagement as core domains (Friedman & Kass, 2002; Fackler et al., 2021). Initial empirical investigations often relied on self-report questionnaires to assess teachers' perceived efficacy, with studies consistently finding that higher self-efficacy was associated with more effective classroom management, supportive classroom climates, and instructional strategies and learning environments that stimulate students (Künsting, 2016; Perera, 2020). Longitudinal research demonstrated that teacher self-efficacy is relatively stable over time and serves as a long-term predictor of instructional quality, with mastery goal orientation mediating the relationship between self-efficacy and classroom climate (Künsting, 2016). Furthermore, studies highlighted the predictive value of teacher self-efficacy for both teacher well-being and student achievement, particularly in subject-specific contexts such as mathematics (Perera, 2020).

Research also began to explore the factors influencing the development of teacher self-efficacy. These included personal values, motivations for teaching, and contextual variables such as teaching experience, professional development, and the quality of school environments (Barni, Danioni, & Benevene, 2019; Wray et al., 2022). Thus, past studies on teacher self-efficacy established it as a multidimensional and context-dependent construct, closely linked to both teacher and student outcomes. These foundational works laid the groundwork for subsequent research into the mechanisms, influencing factors, and broader implications of teacher self-efficacy in diverse educational settings.

1.6.1 Significance of Teacher Self-Efficacy

In educational research, teacher self-efficacy is recognised as an important construct that represents teachers' beliefs in their competence in effectively carrying out instructional duties. Its relevance spans multiple dimensions, shaping classroom dynamics, influencing student performance, and contributing to teachers' professional well-being. Higher teacher self-efficacy is linked to higher classroom quality, characterised by more effective teaching methods, classroom management, and increased student participation. These elements foster students' academic development and success, while also enriching the overall classroom environment (Künsting et al., 2016; Zee & Koomen, 2016; Perera & John, 2020; Burić et al.,2024).

Moreover, teacher self-efficacy is positively associated with key elements of psychological well-being, including enhanced job satisfaction, a stronger sense of achievement, and greater professional commitment. In contrast, those with reduced self-efficacy are more prone to occupational stress and increased risk of burnout (Zee & Koomen, 2016; Barni et al., 2019; Perera & John, 2020). Longitudinal studies have shown that teacher self-efficacy consistently predicts good teaching quality. It helps create supportive classroom environments and encourages thinking skills—both of which are important for student learning (Holzberger et al., 2013; Künsting et al., 2016; Burić et al., 2024). Teacher self-efficacy also plays a role in shaping teachers' attitudes toward inclusive education and their willingness to adopt innovative teaching practices. Teachers with stronger self-efficacy are more likely to hold positive attitudes toward inclusive education and to foster inclusivity in their classroom practices (Yada et al., 2013). Additionally, self-efficacy beliefs can mediate the relationship between teachers' personal values, motivations, and their professional behaviours, further highlighting their central role in educational settings (Barni et al., 2019). Teacher self-efficacy is a foundational element that not only enhances teaching quality and student achievement but also supports teacher well-being and professional growth. Its significance extends across various educational contexts, making it a key focus for educational research and professional development initiatives.

1.7 Creativity Fostering Teacher Behaviour and Its Relation with Creative Teaching Attitude and Teacher Self-efficacy

While the significance of creativity in education is widely acknowledged, the transition from theory to practice continues to pose challenges, necessitating a holistic approach in the educational landscape (Desmet & Sternberg, 2024). Behaviours that promote creativity within educational settings are essential for cultivating students' creative abilities and equipping them to face future challenges. Teachers occupy a central position in this dynamic process, and numerous studies have examined the diverse aspects of how teachers can cultivate creativity within their students. The behaviour of teachers profoundly influences students' creativity. Soh (2000) underscores the significance of social modelling, reinforcement, and establishing a supportive classroom environment for fostering creativity. Teachers who exhibit creativity-fostering behaviours have a beneficial influence on the creative achievement of their students, particularly in the context of science activities. The relationship between these two factors is mediated by intrinsic motivation, and students who exhibit high openness to experience tend to achieve more creative outcomes (Du et al., 2019). By encouraging students to think independently and flexibly, teachers who exhibit creativity-fostering behaviours also assist students in overcoming challenges in areas such as mathematics (Metu, 2023). The model of "meta-creativity," derived from a comprehensive literature review, specifies six different dimensions of creativity-fostering teacher behaviour. These dimensions include affective, cognitive, behavioural, metacognitive, creativity-in-action, and uncertainty. This model highlights the transdisciplinary and collaborative approach essential for promoting creativity within higher education (Brauer et al., 2024)

There is a complex and important relationship between teacher behaviour that supports creativity and the attitudes that teachers have toward creative teaching. The effectiveness of teachers in encouraging creativity among students is increased when they engage in activities that encourage creativity. Teachers who engage in these behaviours typically have a favourable attitude toward creative teaching, which in turn enhance their effectiveness. The attitudes that teachers hold regarding creativity, such as whether they

consider it an intrinsic quality or a skill that can be nurtured, have a substantial impact on the educational approaches they employ. A growth mindset in teachers may strengthen their self-assurance and ability to inspire creativity in their students (Paek & Sumners, 2019). Creating a supportive classroom climate and employing specific instructional practices are both necessary components of fostering creativity. Practices that encourage creative thinking are more likely to be implemented by teachers who are both highly motivated and possess a favourable attitude about the nature of creativity (Soh, 2017; Hong et al., 2009).

The examination of teacher self-efficacy represents a crucial focus within the field of education. Research demonstrates a positive correlation between teacher behaviours that promote creativity and teacher self-efficacy, indicating that teachers who have confidence in their abilities are more inclined to engage in practices that encourage creativity among their students (Ozkal, 2014; Cayirdag, 2017; Sutjonong, 2022). The internal aspect of teachers' self-efficacy plays a crucial role in predicting their behaviours that foster creativity. Teachers possessing a firm internal locus of control demonstrate a greater propensity to take initiative and employ creative teaching strategies (Cayirdag, 2017; Sutjonong et al., 2022; Hayati et al., 2023). The belief in one's creative capabilities, known as creative self-efficacy, plays a crucial role in fostering creative teaching practices. Teachers who possess a heightened sense of creative self-efficacy are more inclined to embrace and implement creative instructional methodologies. This highlights the significance of building teachers' confidence in their creative capabilities (Chen, 2024; Rachmadhani & Jufrizal, 2024). The self-efficacy of teachers can serve as a mediator in the relation between the perceptions teachers have of creativity and their actual creative teaching practices. This suggests that self-efficacy influences not only how teachers perceive creativity but also how they implement creative teaching methods (Fadhilah et al., 2022; Sutjonong et al., 2022). Teacher creativity-fostering behaviour has also been linked to teaching experience, with higher levels of creative teaching behaviours being exhibited by teachers with more years of teaching experience, which may be linked

to the teachers' greater sense of self-efficacy over the course of their careers (Cayirdag, 2017; Yang, 2023).

The relationship between teacher self-efficacy and attitude towards creative teaching, with creativity-fostering teacher behaviour, is undeniably profound, as several studies have highlighted the crucial role of teachers' attitudes toward creative teaching and their sense of self-efficacy in encouraging creativity in the classroom. Teachers who believe in their abilities are more likely to engage in and implement creative teaching practices, which can significantly enhance student learning and creativity. A positive attitude towards creative teaching and a strong sense of teacher self-efficacy are directly correlated with creativity-fostering teacher behaviour. This relationship highlights the need for professional development programmes that boost teachers' self-efficacy and creative self-efficacy to improve educational outcomes and promote growth mindsets, thereby supporting creative teaching.

1.8 Brief Background of the Study Area

Nagaland is a hilly state situated in North-Eastern India. It is the 16th state of the Indian Union, with Kohima as its capital. It was granted statehood on December 1, 1963. The total area it encompasses is 16,579 sq. ft at a latitude of 25°6’ and 27°4’ and a longitude of 93°20’ and 95°15’, respectively. On the western frontier, it borders Assam, in the north, it meets Arunachal Pradesh, and in the south, it neighbours Manipur. The eastern frontier of the state alone shares over 215 km of international border with Myanmar. Except for Dimapur, the state has a mountainous landscape. Mount Saramati, at 3,840 metres, is the state’s highest peak, and the range runs along a natural frontier separating Nagaland from neighbouring Myanmar.

There are seventeen Administrative Districts in the state: Kohima, Mokokchung, Dimapur, Phek, Wokha, Tuensang, Zunheboto, Peren, Mon, Longleng, Kiphire, Chumoukedima, Shamator, Tseminyu, Noklak, Niuland, and Meluri (Government of Nagaland, State Portal, 2025). The state has seventeen major tribes, each with its own unique language, culture, and attire. Nagaland is called the ‘Land of Festivals’ as each tribes celebrate its respective seasonal festivals. Since most people in the state depend on

agriculture, which is the mainstay of the Naga economy, the main celebrations of the festival are agriculture-based. Each of the tribes has its customary laws governing its social life. Such customary laws are institutionalised by the local bodies, which are local councils for villages, commonly referred to as Village Councils.

According to the 2011 Census of India, the state has a population of 1,978,502 persons. The density of the state is 119 per square kilometre. Dimapur is the most populous district, followed by Kohima and Mon, respectively, while Longleng is the least populous district with only 50,484 persons. The literacy rate of the state is higher than the national average (70.04%), with a rate of 79.55% as per the 2011 Census. The literacy rates for males and females are 82.75% and 76.11%, respectively. English is the state language and also the language of instruction in the schools. Christianity was introduced to Nagaland, which subsequently led to the establishment of formal education. Many educational institutions have been set up in the state since then. The positive impact of education on the human development of the Nagas has shown remarkable progress in several spheres.

1.8.1 Elementary Education in Nagaland

As with the rest of the country, Elementary education in Nagaland refers to the first eight years of schooling. It is applied to all grades above Kindergarten and below High School. It starts from class I to VIII, covering children aged 6 to 14 years. Elementary education comprises two stages:

a) Lower Primary: with classes I to V comprising the age group of 6 to 11 years.
b) Upper Primary/ Middle School: with classes VI-VIII comprising students aged 11 to 14 years.

The State Department of School Education (DoSE), a statutory governing body, oversees the state's Primary, Elementary, Secondary, and Higher Secondary Education. As reported by the State Department of School Education, in 1961, the state's literacy rate was at a mere 14 per cent. However, with the creation of statehood, the literacy rate has gradually increased, and stands at 79.55% according to the 2011 census, surpassing the National Average of 77.7%. The number of government schools managed by the State Department of School Education (DoSE) as of 2023 comes to a total of 1,939 government

school and are categorized under the following four levels: Government Primary Schools (GPS, 1050), Government Middle Schools (GMS, 595), Government High Schools (GHS, 242), and Government Higher Secondary Schools (GHSS, 52). The detailed number of government schools in Nagaland district-wise has been presented in Table 1.1

Table 1.1

District-wise Number of Government Schools in Nagaland State (2023)

District	GPS	GMS	GHS	GHSS	Grand Total
Chumoukedima	38	47	9	3	97
Dimapur	52	45	13	3	113
Kiphire	55	34	15	2	106
Kohima	56	44	16	8	124
Longleng	54	18	15	1	88
Mokokchung	104	54	35	5	198
Mon	133	68	16	6	223
Noklak	26	9	4	1	40
Niuland	46	28	3	1	78
Peren	74	40	14	4	132
Phek	93	42	35	4	174
Shamator	27	20	6	1	54
Tseminyu	30	9	6	1	46
Tuensang	50	31	16	3	100
Wokha	89	31	18	4	142
Zunheboto	123	75	21	5	224
Grand Total	1050	595	242	52	1939

Source: Department of School Education, Nagaland (DoSE, 2023)

(*Note: Despite district segmentation, as of 2023, the total number of government schools remains unchanged.)*

Correspondingly, the Nagaland Board of School Education (NBSE) is the state agency responsible for overseeing the affairs of conducting high school and higher

secondary state examinations, including the assessment of external examinations, implementing educational reforms, prescribing the syllabus, and providing services for school development in the state. The number of Private Schools affiliated with the Nagaland Board of School Education (NBSE) has been presented in Table 1.2.

Table 1.2

District-wise Number of Private Schools in Nagaland State under Nagaland Board of School Education (2023)

District	Private Higher Secondary Schools	Recognised Private High Schools	Permitted Schools	Grand Total
Chumoukedima	24	3	36	63
Dimapur	32	8	42	82
Kiphire	2	2	9	13
Kohima	32	18	15	65
Longleng	1	2	5	8
Mokokchung	13	11	5	29
Mon	6	1	34	41
Noklak	-	1	3	4
Niuland	-	1	9	10
Peren	7	4	8	19
Phek	6	12	6	24
Shamator	1	-	2	3
Tseminyu	1	2	2	5
Tuensang	2	5	11	18
Wokha	4	7	14	25
Zunheboto	5	14	12	31
Grand Total	136	91	213	440

Source: Private Schools in Nagaland State under Nagaland Board of School Education (NBSE, 2023)

A unique characteristic of elementary education in Nagaland is the Communitisation of Elementary Education in the state, which involves a partnership between the state government and the community to oversee the affairs of school education at the village level. The state-level Communitisation of education is a special kind of decentralisation of power that guarantees grassroots-level participation in the management, investment, and delivery of services.

According to the Nagaland Communitisation of Public Services and Institutions Act (2002), all government primary and middle schools in the state are communitised. Enactment of the Act entails the transfer of ownership and division of responsibility for managing elementary schools between the local community and the relevant authorities. It encompasses the transition of administrative, academic, and financial responsibilities into the village community through the formation of a Village Education Committee (VEC), vested with the legal authority to oversee matters related to elementary education within its jurisdiction. Judging by some key indicators, the management of elementary schools has improved overall through the communitization of education (Humtsoe, 2013). However, the concerns include the need for an effective monitoring system, teacher shortages in remote areas, and physical constraints that hinder access to remote parts of the state.

1.9 Significance of the Study

Nurturing creativity requires an environment that is both encouraging and rewarding for creative actions. While an individual may possess all of the internal resources necessary to think creatively, without an environment that fosters and rewards creative risk-taking, the individual's inherent creativity may never be realised (Sternberg, 2006). Despite many teachers' noble intentions to encourage children's creative potential, they differ in the degree to which they support, enhance, or foster creativity in the classroom (Flieth, 2000). Teachers' attitudes are a reflection of their beliefs and can significantly affect their practice. It is essential to understand teachers' beliefs about creativity and their perspective on creative practice, as research has shown that teachers'

views on creativity are correlated with the frequency at which creativity is emphasised in the classroom (Craft, 2001).

Elementary Education is the foundation, and it is the most important stage in a child's development, marking a transition from early childhood education to secondary school. Awareness of the importance of elementary education has led the Government of India to provide free, compulsory, and universal primary education to all children in the age group between six and fourteen years, as mandated by Article 45 of the Indian Constitution, which is included in the Directive Principles of State Policy. The 86th Constitutional Amendment of 2002, which included Article 21A in the Indian Constitution, made education a Fundamental Right.

The basic aim of elementary education is to create, establish and provide all children with meaningful opportunities that support their overall growth—intellectually, emotionally, and physically. This is the formative period in the learner's life where major developmental activities take place, and also a stage where creativity can be well nurtured. These aspects of primary education require specific parameters for teachers directly involved in them. Teachers at this stage of education need not necessarily be subject specialists; instead, they require specific skill sets to nurture the all-round development of the learner, including their creative capacities.

However, it is acknowledged that the Indian education system faces a creativity crisis (Bakhshi, 2020). The National Education Policy 2020 addresses this by prioritising the development of learners' creativity and critical thinking to drive innovation. This need is especially pressing in Nagaland, where the National Achievement Survey (2017) consistently shows lower-than-average performance across subjects, with difficulties in mathematics and science emerging early and worsening over time. The India Innovation Index (2020) further reveals persistent underperformance and low innovation capacity in the state. While systemic bottlenecks contribute to these challenges, they also underscore the vital role of education in nurturing creative potential. Fostering creativity and innovation in classrooms requires sustained effort, with teachers playing a pivotal role by actively encouraging and recognising students' creative expressions.

While the creativity of students has been the focus of extensive research, the creativity-fostering behaviours of teachers remain underexplored. Teacher attitudes toward creative teaching can significantly influence their practices, and beliefs in their abilities (self-efficacy) are important predictors of their teaching behaviour (Bandura, 1997). This study seeks to fill this critical gap by investigating the creativity-fostering behaviours of elementary school teachers in Nagaland. It will also explore how these behaviours are interconnected with teachers' attitudes toward creative teaching and their self-efficacy. The findings will provide policymakers, educators, and educational planners with valuable insights, highlighting the importance of fostering a creativity-oriented teaching environment.

1.10 Statement of the Problem

Teachers play an essential role in nurturing the creative potentials of students through creativity-supporting teacher behaviour. Hence, the study attempts to examine whether the teacher's attitude towards creative teaching and their self-efficacy influence creativity-fostering teacher behaviour. The study has been titled: ***"Creativity Fostering Teacher Behaviour in Relation to Creative Teaching Attitude and Teacher Self-Efficacy of Elementary School Teachers in Nagaland".***

1.11 Objectives of the Study

The objectives of the study are stated as follows:

1. To assess the levels and component-wise distribution of Creativity-Fostering Teacher Behaviour, Creative Teaching Attitude, and Teacher Self-Efficacy among Elementary School Teachers.
2. To compare mean scores of Creativity-Fostering Teacher Behaviour in relation to Gender, Type of School Management, Professional Qualification, and Teaching Experience among Elementary School Teachers.
3. To compare mean scores of Creative Teaching Attitude in relation to Gender, Type of School Management, Professional Qualification, and Teaching Experience among Elementary School Teachers.

4. To compare mean scores of Teacher Self-Efficacy in relation to Gender, Type of School Management, Professional Qualification, and Teaching Experience among Elementary School Teachers.
5. To examine the interaction effects of Gender, Type of School Management, Professional Qualification, and Teaching Experience on Creativity-Fostering Teacher Behaviour among Elementary School Teachers.
6. To examine the interaction effects of Gender, Type of School Management, Professional Qualification, and Teaching Experience on Creative Teaching Attitude among Elementary School Teachers.
7. To examine the interaction effects of Gender, Type of School Management, Professional Qualification, and Teaching Experience on Teacher Self-Efficacy among Elementary School Teachers.
8. To determine the relationship between Creativity-Fostering Teacher Behaviour and Creative Teaching Attitude among Elementary School Teachers.
9. To determine the relationship between Creativity-Fostering Teacher Behaviour and Teacher Self-Efficacy among Elementary School Teachers.
10. To determine the relationship between Creative Teaching Attitude and Teacher Self-Efficacy among Elementary School Teachers.
11. To examine the predictive contribution of Creative Teaching Attitude and Teacher Self-Efficacy to Creativity-Fostering Teacher Behaviour among Elementary School Teachers.

1.12 Hypotheses of the study

H_{01}: There is no significant difference in mean scores of Creativity Fostering Teacher Behaviour between Male and Female Elementary School Teachers.

H_{02}: There is no significant difference in mean scores of Creativity Fostering Teacher Behaviour between Government and Private Elementary School Teachers.

H_{03}: There is no significant difference in mean scores of Creativity Fostering Teacher Behaviour between Trained and Untrained Elementary School Teachers.

H_{04}: There is no significant difference in mean scores of Creativity Fostering Teacher Behaviour among Elementary School Teachers with 0-10 years, 11-20 years, and more than 20 years of teaching experience.

H_{05}: There is no significant difference in mean scores of Creative Teaching Attitude between Male and Female Elementary School Teachers.

H_{06}: There is no significant difference in mean scores of Creative Teaching Attitude between Government and Private Elementary School Teachers.

H_{07}: There is no significant difference in mean scores of Creative Teaching Attitude between Trained and Untrained Elementary School Teachers.

H_{08}: There is no significant difference in mean scores of Creative Teaching Attitude among Elementary School Teachers with 0-10 years, 11-20 years, and more than 20 years of teaching experience.

H_{09}: There is no significant difference in mean scores of Teacher Self-Efficacy between Male and Female Elementary School Teachers.

H_{010}: There is no significant difference in mean scores of Teacher Self-Efficacy between Government and Private Elementary School Teachers.

H_{011}: There is no significant difference in mean scores of Teacher Self-Efficacy between Trained and Untrained Teachers.

H_{012}: There is no significant difference in mean scores of Teacher Self-Efficacy among Elementary School Teachers with 0-10 years, 11-20 years, and more than 20 years of teaching experience.

H_{013}: There is no significant interaction effect of Gender, Type of School Management, Professional Qualification, and Teaching Experience on Creativity Fostering Teacher Behaviour of Elementary School Teachers.

H_{014}: There is no significant interaction effect of Gender, Type of School Management, Professional Qualification, and Teaching Experience on Creative Teaching Attitude of Elementary School Teachers.

H_{015}: There is no significant interaction effect of Gender, Type of School Management, Professional Qualification, and Teaching Experience on Teacher Self-Efficacy of Elementary School Teachers.

H_{016}: There is no significant relationship between Creativity Fostering Teacher Behaviour and Creative Teaching Attitude of Elementary School Teachers.

H_{017}: There is no significant relationship between Creativity Fostering Teacher Behaviour and Teacher Self-Efficacy of Elementary School Teachers.

H_{018}: There is no significant relationship between Creative Teaching Attitude and Teacher Self-Efficacy of Elementary School Teachers.

H_{019}: Creative Teaching Attitude and Teacher Self-Efficacy do not significantly predict Creativity Fostering Teacher Behaviour of Elementary School Teachers.

1.13 Operational Definitions of the Terms Used

Creativity-Fostering Teacher Behaviour: Creativity-Fostering Teacher Behaviour refers to how teachers engage with their students' ideas, perspectives, and suggestions throughout lessons and in their regular interactions, which can impact students' creativity (Soh, 2000). It includes nine dimensions of creativity-fostering teacher behaviour, namely Independence, Integration, Motivation, Judgment, Flexibility, Evaluation, Question, Opportunities, and Frustration, as measured by the Creativity Fostering Teacher Behaviour Index (Soh, 2000).

Creative Teaching Attitude: Creative teaching attitude refers to a teacher's disposition to respond favourably or unfavourably towards utilising creative instructional methods and teaching solutions to make learning more engaging and effective. It encompasses three dimensions: pedagogy, personal qualities, and classroom ethos, as assessed by the Teachers' Attitude Scale of Creative Teaching.

Teacher Self-Efficacy: Teacher self-efficacy refers to an individual teacher's belief in their ability to execute specific tasks and achieve intended educational outcomes effectively. This includes self-efficacy in six dimensions: Instructional efficacy,

Classroom Management, Inclusive Practices, Ethics and Values, Adapt to Changes and Challenges, and Cooperating with Colleagues and Parents, as measured by the Teacher Self-Efficacy Scale.

Elementary School Teachers: Elementary School Teachers refer to the teachers teaching in classes VI to VIII in both government and private schools of Nagaland under the Nagaland Board of School Education (NBSE).

Gender: Gender refers to Male and Female teachers teaching in classes VI to VIII in both government and private schools in Nagaland, affiliated with the Nagaland Board of School Education (NBSE).

Type of School Management: Type of School Management refers to schools with classes VI to VIII that are managed by either the Government or Private bodies in Nagaland, affiliated with the Nagaland Board of School Education (NBSE).

Professional Qualification: Professional Qualification refers to the teacher's training status, categorised as either Trained or Untrained, among those teaching classes VI to VIII in government and private schools in Nagaland affiliated with the Nagaland Board of School Education (NBSE).

Teaching experience: Teaching experience refers to the duration the teachers have been teaching in classes VI to VIII in both government and private schools in Nagaland, affiliated with the Nagaland Board of School Education (NBSE), and is categorised as 0-10 years, 11-20 years, and above 20 years of teaching experience.

1.14 Variables Included in the Study

Dependent Variable - Creativity Fostering Teacher Behaviour

Independent Variables - Creative Teaching Attitude and Teacher Self-Efficacy.

Demographic Variables - Gender (Male and Female), Type of School Management (Government and Private), Professional Qualification (Trained and Untrained), and Teaching Experience (0-10 years, 11-20 years, > 20 years).

1.15 Delimitations of the Study

1. The study is delimited to elementary school teachers teaching classes VI to VIII.

2. The study is delimited to those schools which are affiliated with the Nagaland Board of School Education (NBSE)

CHAPTER-II
REVIEW OF RELATED LITERATURE

2.0 Introduction

The review of related literature is a systematic search and interpretation of previously done works that have information related to the research problem (Mohan, 2003). Reviewing the related literature provides the researcher with a good understanding of the methods and approaches employed by earlier researchers, helps identify gaps in the research, and supports the identification of information that substantiates the research results. According to Best and Kahn (2010), a review of related literature summarises the works of experts and prior research, demonstrating that the researcher is well-versed in the existing knowledge and areas yet to be tested or verified.

In light of the aforementioned points, the researcher has endeavoured to conduct a survey of the related literature in the chosen area of study. This enabled the researcher to identify the appropriate course and formulate suitable hypotheses for the study. In this chapter, the researcher undertakes a review and analysis of pertinent studies that align with the core variables of the present investigation. The review of related literature has been listed in chronological order and is classified under two broad headings: (a) Studies conducted abroad; (b) Studies conducted in India. The total number of studies reviewed for the study is presented in the table below.

Table 2.1

Number of studies reviewed for the study

Variables	No. of Studies	Year
Creativity Fostering Teacher Behaviour	Abroad - 21 India - 5	2007 - 2025
Creative Teaching Attitude	Abroad - 17 India - 10	2006 - 2024
Teacher Self-Efficacy.	Abroad - 26 India - 17	2000 - 2025
Total	96	

2.1 Studies Related to Creativity Fostering Teacher Behaviour

2.1.1 Studies conducted abroad

Forrester and Hui (2007) study focused on teachers' classroom practices that foster creativity. The study involved a sample of 27 primary school teachers, each possessing between 10 and 17 years of professional teaching experience. The study participants comprised 11 males and 16 females who taught Chinese, mathematics, and general studies. The instruments of the study were Furman, A. (1998) Classroom Observation Form; Soh, K. C. (2000) Creativity Fostering Teacher Index, and Gough, H.G., Creative Personality Scale (1978). The pupils were also given a Chinese Creativity Test. As noted in the study findings:

- Teachers' creativity-fostering behaviour and students' verbal and figural creativity measures were positively correlated.
- There were substantial group differences concerning teachers' behaviours fostering creativity concerning the subjects taught.
- Teacher qualification, teaching experience, or gender, on the other hand, did not affect the teachers' Creativity Fostering Teacher Index subscale scores.

Hong et al. (2009) examined the relationships among teachers' epistemological beliefs, goal orientation, motivation, and instructional practices that foster student creativity. The sample comprised 178 elementary school teachers from grades three to five. As noted in the study findings:

- Teachers' orientation towards their students' learning goals had a substantial effect on all creative-learning strategies.
- Teachers who value creativity and have high intrinsic motivation for creativity tend to promote student creativity through their teaching practices.
- However, teachers' views on learning, motivation to face challenging tasks, and expectations for students' achievement did not show a strong predictive value for the majority of creativity-fostering teaching strategies.

Olawale et al. (2010) conducted a study to evaluate the creativity-fostering behaviours of university lecturers, examining how these practices serve as indicators of both professional productivity and capacity building. To achieve the study's objective, the investigator employed a multi-stage sampling technique. First, two universities were randomly selected from Ogun and Oyo States, with two faculties from each university. Ten participants were randomly selected from each selected faculty, with their ages ranging from 32 to 64 years. Data were collected using the Creativity Fostering Teacher Index (CFTI) developed by Soh (2000). The lecturers demonstrated moderate to reasonably high levels of creativity and supportive behaviour, which were indicative of strong professional output and meaningful contributions to capacity building.

Hondzel (2013) carried out a study to explore the strategies employed by primary school teachers to foster creativity within their classrooms. The research employed a mixed-methods approach, conducted in two phases. In the study's first phase, 22 Ontario teachers from Grades 5-7 completed an online CFTIndex (Soh, 2000) survey to assess their creativity-fostering behaviours. Following the survey, twelve teachers were interviewed, along with classroom observation of the teachers by the researcher. The sample for the study consisted of four male and eighteen female teachers with an average of 12.5 years of teaching experience. The findings show:

- High levels of creativity foster behaviours of elementary school teachers.
- Moderate relationship between years of teaching experience and overall teacher creativity-fostering behaviour.
- No significant gender-based differences were found between male and female teachers in their creativity-fostering practices.
- Furthermore, no significant variation was seen between urban and rural teachers.

The research concludes that teachers should enhance children's holistic and imaginative development while tolerating behaviours associated with creative expression in their efforts to encourage students' creativity.

Chan and Yuen (2014) compared the creativity-fostering teacher behaviour of teachers of gifted education with that of regular class teachers. It further explored the intercorrelations among teachers' perceptions of creativity, creative personality, and creativity-fostering teacher behaviour. The study drew upon survey data from a sample of 399 primary school teachers in Hong Kong, including 68 male and 331 female participants. The study's findings, based on regression analysis, revealed that teachers' beliefs about creativity and their own creative personality significantly contribute to predicting their creativity-fostering behaviours. Gifted education teachers scored significantly higher on all the variables mentioned: creativity-fostering teacher behaviours, creativity beliefs, and creative personality. The investigator underscores the significance of professional development programs that actively involve teachers in creativity-oriented activities, alongside the imperative for a school environment that supports and values creativity.

Lee and Kemple (2014) examined the relationships among preservice teachers' beliefs about the teaching practices that support children's creativity, their engagement in creative activities, and their personality traits. The study comprised 302 early childhood and elementary preservice teachers. The research tools used are as follows: the Ten-Item Personality Inventory (TIPI) to measure the teacher's personality traits, the Creative Behaviour Inventory (CBI) to assess creativity-related experiences, and the Creativity-Fostering Teacher Behaviour Index (CFTI) to evaluate creativity-fostering teaching practices. Results of multiple regression analysis indicate that Preservice teachers with higher openness traits engaged in more creativity-related experiences. They also scored higher in teacher behaviour that fosters creativity. Preservice teachers' creativity partially mediated the relationship between their personality traits (openness) and the teaching practices that fostered children's creativity.

Cayirdag (2017) examined the creativity-fostering behaviour of teachers and its relation with the teacher's creative self-efficacy and teacher efficacy. Through convenience sampling, 322 teachers comprised the study's sample (118 males and 203 females). Data

were gathered using the Creative Self-Efficacy Scale (CSES) designed by Tierney and Farmer (2002), the Teacher Efficacy Scale (TES) by Guskey and Passaro (1994) and the Creativity Fostering Teacher Index (CFTI), adapted into Turkish by Dikici (2013). As noted in the study findings:

- Teacher creative self-efficacy and teacher efficacy positively influenced the creativity-fostering teacher behaviour.
- Teachers with high creative self-efficacy and teacher efficacy showed a higher likelihood of employing teaching practices that nurture creativity.
- In addition, the study found that more experienced teachers were less student-centred. The author suggests that more experienced teachers tend to be more teacher-centred, as they experience a decline in motivation and revert to more conventional teaching methods.

De Bruin and Harris (2017) conducted a comparative study on the elements of creativity in secondary schools in Australia and Singapore. The data for the study were collected from principals, teachers, and students through interviews and focus groups from schools across the two countries. The study finds that teacher behaviours, teaching environments, and the type of school leadership can either promote or stifle creativity, underscoring the importance of a supportive ecological approach to creativity in education.

Konstantinidou and Zisi (2017) study aimed at identifying the teacher behaviours that promote creativity in children. The study was conducted among physical education teachers, with 30 participants (17 female and 13 male) from 27 primary schools in Greece participating in the study. The research instrument used in this study was the Creativity-Fostering Teacher Behaviour checklist, adapted from the CFTIndex by Soh (2000). The study employed a non-participant naturalistic observation whereby each participant was observed twice during physical education lessons for grades 1 and 2. The study observed very low levels of creativity fostering teacher behaviour and suggests that the factors behind this could be a lack of academic education and professional development of

teachers in areas of creativity, as well as a rigid curriculum that limits teachers from exploring ways of teaching for creativity.

Liu and Wang (2019) studied the creative teaching behaviours of Taiwanese healthcare school teachers and the mediating and moderating effects of creative teaching self-efficacy and a school's creative climate. The study utilised a descriptive survey methodology, and the samples were collected purposively in five vocational and technical healthcare schools in Taiwan. Fifty-three teachers participated in the study, and a self-report questionnaire was used to collect data covering three dimensions: teaching, the school environment, and creativity. Results show that teachers' self-efficacy and creative teaching play mediating and moderating roles in the relationship between school creative climate and teachers' creative teaching activities. The study suggests that teachers' creative teaching behaviours can be improved by strengthening their creative self-efficacy and creative capacities.

Apak et al. (2021) explored teacher creativity, nurturing behaviour, and teacher readiness to manage 21st-century classrooms. The study comprised 439 government secondary school teachers in Sabah, Malaysia, selected through a convenience sampling technique. As noted in the study findings:

- Teachers have a high creativity nurturing behaviour. Teachers with higher levels of creativity nurturing behaviour were also more prepared for 21st-century classroom management.
- Highly experienced teachers (more than 20 years of teaching experience) have higher creativity and innovation than less experienced teachers.
- The findings infer that teachers encourage students to nurture creativity and uphold creative thinking in 21st-century classroom management by actively contributing to the lesson with interesting ideas and suggestions, and allowing students to think in different ways. In addition, teachers must encourage the practical application of acquired knowledge across various contexts and emphasise the importance of achieving foundational comprehension.

Ayyildiz and Yilmaz (2021) study aimed to investigate the impact of creative personality traits on the creative thinking of pre-service teachers. The teachers' creativity-fostering behaviour and creative learning environments were considered as the mediating factors in the study. For the selection of the sample, a purposeful sampling technique was employed. Pre-service teachers numbering 1320 comprised the sample (55% female and 45% male). The participants were from diverse educational streams and backgrounds, with special attention given to those involved in courses related to creative and critical thinking, entrepreneurship, and creativity. For analysis of the data, both descriptive and inferential statistics were used, and the mediation effect of variables was investigated using mediation analysis models. As a result, it was found that creative personality traits of pre-service teachers positively predicted creative thinking dispositions. Teachers' creativity-fostering behaviour and the creation of creative learning environments were also found to have a mediating effect.

Sahin (2021) investigated the effects of teachers' personality traits on developing creative thinking abilities among primary school students. The study employed a descriptive method, and participants were selected using purposeful sampling. The study was conducted in two stages. In the first stage, data were collected from 100 teachers based on their personalities. In the second stage, six teachers with the highest or lowest scores were selected based on their performance in the three personality traits. The observation part of the study was conducted in 6 classrooms with 141 students. The instruments employed for data collection were the Adjective–Based Personality Scale (ABPS) developed by Bacanlı, İlhan, and Aslan (2009), consisting of 40 items on a 7-point Likert scale. Creativity Task is based on the Torrance Creative Thinking Test (TTCT) and Creativity Fostering Teacher Behaviour Observation form by Soh (2000), which was adapted into Turkish by Dikici (2011). Findings indicate that teachers who scored higher on the personality trait test for openness to experience showed significantly higher levels of creativity-supporting behaviour in the classroom. In addition, the creativity scores of students were also significantly higher for those classes where teachers scored higher levels of creativity-fostering behaviour in the classroom.

Huang (2022) studied the relation between teachers' creative self-concept and teaching for creativity. A multigroup structural equation modelling was used, and data were collected from 1043 primary and secondary school teachers in central China. The following measures were used: Self-View of Creative Behaviour (SVoCB) by Kirton (1976); School's expectation of creativity (SEoC) scale developed by Farmer et al. (2003), a six-item scale; Colleague expectation of creativity (CEoC) by Callero (1985); Student expectation of creativity (SEoC) by Callero (1985); Creative Self-Efficacy, adapted from Tschannen-Moran and Woolfolk Hoy (2001)'s short form measurement for teacher self-efficacy, along with Soh (2000)'s Creativity Fostering Teacher Behaviour Index. The findings indicate that secondary school teachers have a greater level of creative self-efficacy and engage in more creativity-encouraging behaviours than their primary counterparts. The strongest association was found between school expectations and teachers' creativity-fostering behaviour.

Tok (2022) conducted a study on the correlation between creativity-fostering teacher behaviour and the teaching methods of early childhood educators, using play as a medium. The research employed a screening model and included a sample of 166 foundation phase teachers specialising in early childhood education. Ninety-seven per cent (97%) of the participants were female and three per cent (3%) male, with work experience ranging from 1 to 34 years. The instruments used for data collection are: 1. Teachers' Roles in Free Play, developed by Ivrendi (2017), a 5-point Likert-type scale encompassing 19 items. 2. The Creativity Fostering Teacher Index (CFTI) developed by Soh (2000) and adapted into Turkish by Dikici (2013). The scale was a 5-point Likert-type scale consisting of 33 items. The study found a positive correlation between creativity-fostering teacher behaviour scores and teachers' role in free play. However, no significant relationship was found between age, teaching experience, class size, and creativity-supporting styles among teachers.

Zibenberg and Da'as (2022) study examined how teachers' perceptions of ideal principals and ideal students can predict teacher behaviour that fosters creativity. A total

of 461 Israeli Arab teachers, selected through convenience sampling from 43 public schools throughout Israel, participated in the study. The following tools were used to collect data: The Creativity Fostering Teacher Index (CFTI) developed by Soh (2000), consisting of nine dimensions and 45 statements; the implicit Learning Theories scale by Epitropaki and Martin (2004) to measure perception of an ideal school principal, and the Implicit Followership Theories scale developed by Sy's (2010) to measure perception of an ideal student. Results indicate that implicit beliefs (perceptions of ideal principals and ideal students) of teachers predicted teacher creativity-fostering behaviour. Additionally, female teachers' perceptions of ideal principals and students strongly relate to their creativity, as opposed to those of male teachers. Underpinning the gender biases experienced by women are often rooted in socially constructed gender roles, which can undermine their confidence and hinder their capacity to engage in creative problem-solving or expression.

Da'as (2023) explores principals' ambidexterity (the principal's ability to explore and exploit learning activities) on creativity and creativity-fostering teacher behaviour. For data collection, schools were selected randomly from urban, suburban, and rural areas across Israel. The teachers were conveniently sampled from the schools. Seven hundred ninety-eight teachers and 71 principals from 71 state elementary schools in Arab areas participated in the study. To measure Principals' Ambidexterity, Mom et al. (2009) measure with seven items each for principals' exploitation and principals' exploration each were used; Nemanich and Vera (2009) Likert-type 5-point scale to measure school ambidexterity; Scott and Bruce (1994) scale to measure perceived organizational support of creativity; and the Creativity-Fostering Teacher Behavior Index developed by Soh (2015) a 6 point Likert type scale consisting of 45 items and covering nine dimensions. The research findings indicate that schools' ambidexterity is related to creativity-fostering teacher behaviour, but is not a mediating factor between principals' ambidexterity and creativity-fostering teacher behaviour. Principals' ambidexterity influences creativity by promoting an environment that supports it, affecting teacher behaviour that fosters creativity in the classroom.

Mufidah et al. (2023) investigated the relationship between teachers' perceived creativity-fostering behaviour and student engagement. The study employed a quantitative design, conducted through a mediation analysis, and utilised data obtained from 533 psychology undergraduates in Indonesia via convenience sampling. The research instrument comprised the Creativity Fostering Teacher Index by Soh (2000), the Higher Education Academic Self-Efficacy Scale (CASES) by Ifdil et al. (2019), and the University Students' Engagement Inventory by Marco et al. (2016). Data were analysed statistically with the help of descriptive, correlational, and multiple linear regression tests. The results indicate that there is an effect of perceived creativity fostering behaviour of teachers on student engagement. It further showed a partial mediation effect between the two variables. The study's findings suggest that student involvement in learning can be enhanced by increasing the perceived creativity-fostering teacher behaviour and academic self-efficacy of the students.

Shi et al. (2023) examine social capital and teachers' creative teaching behaviour in school organisations. The study explores how social capital affects teachers' creative teaching behaviour. The study employed a random cluster sampling method to collect data from 415 teachers in 36 primary schools across China. The research instruments include: Social Capital Questionnaire, Knowledge Sharing Questionnaire, Creative Teaching Self-Efficacy Questionnaire, and Questionnaire on Creative Teaching Behaviour. The study results reveal that social capital positively predicts primary school teachers' Creative Teaching Behaviour, and this effect is indirectly mediated through the roles of knowledge sharing and creative teaching self-efficacy.

Chianson-Akaa et al. (2024) study examined the technological-creative fostering behaviour of teachers, specifically how teachers utilise technology to enhance student creativity and its impact on their teaching practices. The correlational research method was used for this study. The study consisted of 70 mathematics teachers from 50 private elementary schools in Makurdi Local Government Area, Benue State, Nigeria. The Mathematics Teacher Tech-Creativity Inventory and the Mathematics Teacher Classroom

Practice Inventory were two tools designed by researchers that were used to gather information. This study employed correlation analysis, scatterplots, and histograms to address its research questions. The study found that the way teachers use technology to encourage creativity has a substantial impact on several aspects, including their clarity, leadership in discussions, feedback, formative assessment, and collaboration with other teachers. The study suggests integrating technology and creativity into lesson instructions can bridge the gap between conventional teaching methods and promote transformative classroom practices. While technology alone does not enhance teaching, this approach empowers teachers to effectively implement instructions and achieve their educational goals.

Tamarin et al. (2025) investigated the antecedent elements influencing the creative teaching behaviour of teachers and the mediating effect of creative teaching self-efficacy on the relationship among creative climate, school support, and creative teaching behaviour. A random sample of 400 teachers was selected from 25 vocational high schools in Central Java Province, Indonesia. The participants comprised 208 female teachers (52%) and 192 male teachers (48%). The study tools include the Situational Outlook questionnaire by Isaksen et al. (1999), which asked teachers about their views on the creative climate; the School Support questionnaire by Huang et al. (2019); the Creative Teaching Self-efficacy questionnaire by Lin et al. (2008); and the Creative Teaching Behaviour questionnaire by Chang et al. (2010), which has 14 items under four dimensions: autonomous learning; creative thinking; characteristics/motivation; and environment/opportunity. A five-point Likert scale is used, with one meaning "never does this" and five meaning "always does this." The study's hypotheses were examined with structural equation modelling (SEM). Results suggest that both school support and creative teaching self-efficacy influence teachers' creative teaching practices. In addition, creative self-efficacy partially mediates the effects of creative climate and school support on the creative teaching behaviour of school teachers.

2.1.2 Studies conducted in India

Avadhanam and Chand (2016) investigated the correlates of innovative teacher behaviour. The study proposed a strong correlation between teachers' intrinsic motivation and creative self-efficacy, as well as innovative teacher behaviour. Openness to experience, teacher-perceived job complexity and teacher-learning orientation were moderate correlates. Demographic variables such as gender, work experience, age, and educational qualifications did not correlate significantly with innovative teacher behaviour. Instruments for data collection included the Work Preference Inventory, which assessed intrinsic motivation: Tierney and Farmer's four-item scale of creative self-efficacy. Elliot and Church's (1997) scales were used to measure employee learning orientation. The Big Five Inventory measures openness to experience, and the Job Diagnostic Survey measures perceived job complexity. The study identified teacher intrinsic motivation as the most influential factor associated with innovative behaviour among teachers. In contrast, creative self-efficacy showed no significant connection. Additionally, traits like proactive personality, learning orientation, openness to experience, and perceived job complexity did not emerge as significant contributors. Demographic variables such as gender, work experience, age, and educational qualifications did not correlate significantly with innovative teacher behaviour. However, qualification in the TET (Teacher Eligibility Test) is an important predictor of innovative teacher behaviour. The study highlights intrinsic motivation as a central factor in shaping innovative teaching practices, with motivated teachers more likely to display creative behaviour.

Kuril et al. (2021) investigated the impact of negative teacher behaviour in classroom settings on student engagement. It further explored how students' learning strategies and mastery goal orientation moderated or mediated this relationship, offering insights into the conditions under which negative teacher behaviour may be mitigated or exacerbated in terms of its effect on student engagement. The sample comprised 3108 students (52% girls) studying in grade 7 (age 12) from 347 government schools selected through systematic random sampling. Data was collected at two time points, one year apart.

Results from structural equation modelling (SEM) indicate that negative teacher behaviour directly affects and is negatively correlated with student engagement. Furthermore, the relationship between the two variables is mediated by student-specific learning strategies and moderated by mastery goal orientation. Moreover, the effect varies among students of different goal orientations, as it was observed that students with higher mastery goal orientations were less affected by negative teacher behaviour. The study highlights the critical need to educate teachers about the detrimental effects of negative classroom behaviour on student learning outcomes, with particular emphasis on its influence on student engagement.

Yadav and Rekharani (2021) investigated how teachers' behaviours and the prevailing classroom culture influence students' self-esteem. The study was conducted among undergraduate students of the University of Delhi, and data were collected in two phases. In the initial phase, 250 questionnaires were distributed online through Google Forms, of which 152 students responded. The instrument employed a five-point Likert scale and incorporated open-ended items. In the subsequent phase, individual and group discussions were held in the classrooms to gain an in-depth understanding. The study findings suggest that teacher behaviour significantly affects students' self-esteem. Teacher behaviour, such as allowing students to express their views freely and creating an environment that encourages fairness, interaction, and inclusivity, contributes to a favourable classroom climate and builds student self-esteem.

Maun et al. (2023) conducted a study to examine teacher innovative behaviour and its influence on students' academic self-efficacy and intrinsic goal orientation. The study was conducted among 346 teachers and 6,421 students in grades 5 to 8 in government primary schools in Gujarat. The study identified a positive correlation between teachers' innovative behaviour and students' intrinsic goal orientation. Higher levels of teacher innovative behaviour predicted higher levels of intrinsic goal orientation. However, no relationship was observed between the teachers' innovative behaviour and students' academic self-efficacy. The study suggests that for teacher innovative behaviour to have an influence on

students' academic self-efficacy, more enactive (mastery) experiences extending to longer academic years should be provided to students, as low academic self-efficacy could have been influenced by socio-economic deprivation, poor functioning of the government schools, including the quality of teachers in previous academic years.

Dahiya and Malik (2024) investigated the interplay between teacher classroom management behaviour and teacher well-being. The study surveyed 600 senior secondary educators from Haryana, India, to assess how behavioural strategies in the classroom correlate with levels of professional happiness. The Happiness scale (R.L Bhardwaj and Poonam Pandey) and the Teacher's Classroom Management Behaviour scale (Umender Malik and Ganga) were the tools used for data collection. The results suggested that the happiness index had a positive correlation with the classroom management behaviour of senior secondary school teachers. The study underscores the critical role that teachers' psychological well-being plays in impacting their classroom management behaviour.

2.2 Studies related to Creative Teaching Attitude

2.2.1 Studies conducted abroad

Schacter et al. (2006) investigated the relationship between creative teaching and the academic achievement of elementary school students. A sample of 48 upper elementary school teachers was observed across eight instructional lessons distributed throughout the academic year. Data collection focused on both the frequency and quality of creative teaching, which were used as predictor variables to examine their influence on students' classroom achievement. Most elementary teachers do not use any teaching strategies that nurture students' creativity. Results revealed that:

- Students do much better in class where teachers encourage creativity.
- The study observed that classrooms with a higher number of minority and low-achieving students received significantly less creative teaching.

Alkuş and Olgan (2014) study was to examine how preschool teachers view the development of children's creativity. The study examined four central themes that emerged

from teachers' perceptions of creativity, creative individuals, the role of creativity in early childhood education, and the barriers to creativity in this context. A focus group study was conducted on 10 pre-service and 11 in-service teachers. The findings revealed that, despite teachers' knowledge of the worth of creativity and the necessity to engage students in activities that develop their creativity, many hurdles prevent them from reaching this objective. These difficulties may include, among others, limited resources, a lack of training and support for teachers, and time constraints. The findings emphasize the urgency of addressing the systemic and contextual challenges teachers encounter when implementing creative teaching practices.

Hosseini (2014) conducted an experimental study to see whether a creative teaching course affects teachers' knowledge, attitudes toward creativity, and instructional skills. The study involved 120 primary school teachers from Tehran, who were randomly assigned to either an experimental group or a control group. The course comprises three sections: the first is the knowledge section, which contains ten questions. Second, is the attitude section containing thirty questions; and the third section is skill, which contains thirty-five questions. Following the intervention, statistical analyses revealed that the course had a significant positive effect on participants' understanding of creativity, their attitudes toward its integration in teaching, and their practical instructional competencies. These findings suggest that when teachers receive structured support to deepen their understanding of creativity, it can lead to more favourable attitudes and enhanced teaching practices.

Kampylis et al. (2016) explored both in-service and pre-service teachers' perceptions of creativity, as well as their perceived preparedness to foster creativity among students. A total of 132 participants were involved, including 70 in-service primary school teachers and 62 prospective teachers based in Athens. A self-report questionnaire was used as the research instrument to gather both qualitative and quantitative data. The study reveals that, although teachers feel that nurturing students' creativity is part of their teaching role, they do not feel equipped to do so. Only 22.3% of the teachers felt confident in their ability to

nurture students' creativity. The study suggests the need to examine further whether initial and in-service teacher training programmes are effective in promoting teachers' understanding of creativity in teaching.

Paek and Sumners (2017) studied how teachers' implicit beliefs about teaching creativity can either promote or inhibit creativity in the classroom. One hundred and nineteen (119) teachers participated in an online survey. The survey instrument encompassed key domains including teachers' creative mindsets, their perceptions of students' potential, and their self-efficacy in teaching creativity. Findings suggest that teachers who believed creativity to be innate or an inborn talent tended to believe that not every student possesses creative potential, resulting in lower levels of teachers' self-efficacy in teaching for creativity. The corresponding test indicated that teachers' growth in a creative mindset reduced this negative mindset. The study reveals how teachers' implicit beliefs and attitudes influence their self-efficacy in fostering creativity in the classroom.

Kettler et al. (2018) investigated teachers' perception of creativity in the classroom. The study comprised 371 teachers, and data were collected through a self-report questionnaire on personal creativity, along with a set of educational objectives that teachers were asked to prioritise based on perceived significance. Findings reveal that teachers perceive students' characteristics associated with creativity as less desirable than those that are not indicative of creativity. The teachers' grade level, the subject matter they teach, their teaching experience, and age did not seem to affect teachers' perception of creative characteristics. However, the results indicate that more creative teachers exhibit a favourable attitude towards student characteristics associated with creativity.

Wang and Kokotsaki (2018), using a phenomenological lens, investigated how English language teachers at the primary level conceptualise and enact creativity in their pedagogical practice. For the study, the investigator used a purposive sampling technique to select 26 primary school teachers from seven (7) different public primary schools in Beijing. The study found that most teachers exhibited positive attitudes toward promoting creativity and believed that nurturing creative concepts is crucial for effective English

learning. Although most teachers value creativity, hurdles to its actual practice in class include an overcrowded curriculum, insufficient teaching time, exam pressures, and an unsupportive social and cultural environment.

Al Dababneh et al. (2019) focusing on the early years of formal education, investigated how teachers' perceptions, their self-efficacy, and teaching experience influence their capacity to nurture creativity in children. The participant included 297 primary educators teaching classes one to three. The study revealed high levels of teaching creativity in class and that teacher self-efficacy in promoting children's creativity is highly correlated with these teaching creativity levels. The study also indicated a significant gender difference, with females showing more favourable attitudes towards nurturing children's creativity.

Huang et al. (2019) explored early grade teachers' view of and their openness to creative teaching. A total of 621 primary school teachers in China participated by completing a structured self-report questionnaire. Results showed significant variations between teachers from urban, suburban and rural schools regarding teachers' views on implementing creative teaching. Teachers' expectations of their students were a significant factor for urban teachers. In contrast, for suburban and rural teachers, school support was a crucial factor in predicting teachers' intention to engage in creative teaching. The study revealed that, although teachers agree that creativity can be nurtured in school, they often face a substantial lack of support to foster it in school settings.

Huang et al. (2019) investigated the relationships between teachers' attitudes towards teaching for creativity, their creative self-efficacy, and creative role identity. The study sample comprised 167 Chinese kindergarten teachers. For analysis, structural equation modelling was used, and the results showed that teachers' creative self-efficacy served as a mediator between teachers' creative role identity and their attitude towards teaching for creativity. Findings revealed a meaningful link between process-oriented self-efficacy and teachers' attitudes toward implementing creative teaching practices. Conversely, no such relationship was observed with product-oriented self-efficacy.

Li and Li (2019) study aimed to examine teachers' beliefs about creative pedagogy and their perceived implementation in teaching practices. The participants of this study were 698 practising kindergarten teachers from Shanghai, China. The data collection instrument comprised a questionnaire structured to assess four core aspects of creative pedagogy: possibility thinking, interpersonal exchange, self-initiated pursuit, and teacher-oriented pursuit. The study findings indicate that teachers generally have a favourable attitude towards creative pedagogy. However, a contradiction was found between teachers' beliefs and teaching practices. Although teachers reported favourably about possibility thinking, interpersonal exchange, and self-initiated pursuit, these practices were not reflected in their teaching. The investigators believe the divergence could be due to factors such as differences among teachers themselves, their families, the teaching materials, and the environment in which they operate.

Smith (2019) examined teachers' beliefs about creativity, creative pedagogy and the factors that promote creative pedagogy. The study employed a qualitative approach, utilising case studies to examine preschool teachers' beliefs and practices related to creative pedagogy. Three preschool teachers from a rural U.S. setting participated in the study. Data were gathered through several rounds: the first involved a personal interview, the second entailed completing a questionnaire developed by Cheung & Leung (2013) on Early Childhood Creative Pedagogy, the third consisted of observing two lessons, and reflections were taken after each lesson. The research finds that teachers struggle to define creativity and the specific strategies that promote creative pedagogy. Teachers' beliefs regarding creativity and their classroom practices were also inconsistent. The author suggests that an operational definition of creativity for early childhood teachers may be more pragmatic than sticking to a conceptual definition. The study also suggests that teachers need the support of other stakeholders, such as parents, administrators, colleagues, and the community, to aid and support creative pedagogy. Furthermore, findings advocate that at the teacher preparation stage, teachers should explore creativity and creative pedagogy within early childhood curricula.

Ata-Akturk and Sevimli-Celik (2020) study examined pre-service teachers' views on creativity and explored how their teaching approaches reflect creativity. It also investigated teachers' difficulties in engaging in creative processes in early childhood education. The study employed both quantitative and qualitative research methods. The study sample comprised 45 pre-service teachers (PTs) in Ankara, Turkey, enrolled in an early childhood education programme. The study's participants, all female, ranged in age from 21 to 25 years. The study's findings indicated that one of the most frequently mentioned challenges among pre-service teachers in fostering creativity is the lack of knowledge and experience in creativity education. A common hurdle teachers face in the creative process is meeting parental expectations regarding students' achievement. To address the issues, the author suggests giving more practice-based courses to pre-service teachers.

Kasirer and Meirovich (2021) examined the perceptions of general and special education teachers regarding their own level of creativity and the creativity levels of their students. The investigation involved 117 teachers as study participants—59 special education teachers and 58 general education teachers—working in elementary and secondary schools throughout Israel. The study employed a survey method, and the research instrument used was the Teacher's Perceptions of Student Characteristics. Teachers' convergent and divergent thinking creativity were measured using the RAT (Remote Associate Task), developed by Mednick (1962), and the TACT (Tel-Aviv Creativity Test), developed by Milgram et al. (1974), respectively. Results suggest that general and special education teachers view themselves as very creative. Teachers in both study groups believed creativity to be an essential educational goal; however, most teachers preferred students who were less creative in their classes, with general education teachers showing marked preference for students with non−creative characteristics. The study highlights that, although creativity is regarded as an educational imperative, the education system requires teachers to master the knowledge and skills outlined in the curriculum, indicating a tension between the two.

Chen and Yuan (2021) investigated the impact of teachers' imaginative capacity and principals' visionary leadership on the enactment of creative teaching practices. Conducted among 861 elementary educators across 65 primary schools in Taiwan, the research employed descriptive statistics to examine patterns in teachers' creativity-related instructional behaviours, their imaginative dispositions, and the leadership vision of school principals. In addition, the causal structure between each variable was determined using HLM (version 7.0). The results show that all dimensions of teachers' imagination have a positive effect on their creative teaching. Furthermore, when teachers perceive the principal's visionary leadership as higher, the effect of teachers' creative imagination is also more robust. The findings suggest that schools, where teachers perceive innovative teaching as supportive and receptive to new and improved measures, tend to have teachers who exhibit higher levels of creative teaching.

Aini Hayati et al. (2023) study sought to examine the relationship between teachers' self-efficacy and their implementation of creative teaching strategies in primary mathematics classrooms. Adopting a quantitative research design, the investigation drew data from a sample of 242 mathematics educators working at the primary level in Malaysia. To measure Teacher Self-Efficacy, the 12-item Teachers' Sense of Efficacy (TSES; Tschannen-Moran & Hoy, 2001) were used. In addition, Azhari's (2016) Creative Teaching Evaluation Instrument, consisting of 24 items, was also used. The study found a significant correlation between teacher efficacy and creative teaching behaviours. Findings from the analysis reveal that among the examined variables, instructional strategies exert the greatest influence on teachers' self-efficacy, followed by their ability to engage students and manage classroom dynamics. Consequently, the findings from the linear regression analysis suggest that creative teaching can serve as a reliable predictor of teachers' self-efficacy.

Wei and Chuang (2024) study investigates the complex dynamics of creative teaching as situated within broader efforts toward educational reform. Through semi-structured interviews with 19 teachers from elementary, middle, and high schools in Taiwan, the

study found that in-service teachers view creative teaching as an adaptation of unconventional methods, involving the strategic use of diverse teaching methods, blending of multidisciplinary content, and continuous improvement. The study underscores the significance of developing a context-sensitive understanding of creative teaching, recognising that localised educational environments shape how creativity is perceived and enacted. This nuanced perspective is essential for designing targeted initiatives that support teachers' professional growth and instructional innovation. Furthermore, the research advocates for embedding creativity meaningfully within both pre-service teacher education and ongoing professional development programs, ensuring that educators are equipped to foster creativity in pedagogical practices.

2.2.2 Studies conducted in India

Gupta and Jan (2013) study aimed to assess the attitudes of teacher-trainees toward creative teaching using a descriptive survey design. The sample included 200 B.Ed. students from five colleges in the Sambhal district of Uttar Pradesh, representing both science and arts streams. To measure their attitudes, the researchers employed the Attitude Scale of Creative Teaching developed by R. P. Shukla (2008), a 30-item instrument. The results revealed significant differences in attitudes across academic disciplines, with science stream trainees demonstrating a more favourable disposition toward creative teaching than those from the arts stream. Gender differences were also evident, as female trainees exhibited more positive attitudes toward creative teaching compared to their male counterparts.

Kaur (2015) study explored pre-service teachers' attitudes toward creative teaching, taking into account various demographic factors. A sample of 180 B.Ed. students participated in the research, with data collected using the Attitude Scale for Creative Teaching developed by Shukla (2012). The findings revealed a significant variation in attitudes based on geographical location, with urban teacher-trainees exhibiting more favourable views toward creative teaching than their rural counterparts. Additionally, science stream students demonstrated higher levels of positive attitude compared to those

in the arts stream. However, no notable differences were observed between male and female participants regarding their attitudes toward creative teaching.

Kaur (2016) carried out an exploratory study to examine the attitudes of pre-service teacher trainees toward creative teaching. The sample comprised 225 B.Ed. students enrolled in a teacher education program. Data were gathered using the Creative Teaching Attitude Scale developed by R.P. Shukla (2012). Participants completed a pre-test prior to receiving instructional sessions that included demonstrations and theoretical input on macro and micro teaching skills, which were incorporated into the curriculum following regular classes. At the conclusion of each course session, a post-test using the same scale was administered to evaluate the impact of the training. Mean scores from both pre- and post-tests were analysed to assess changes in attitudes. The results indicated that the training program had a significant positive effect on trainees' attitudes toward creative teaching. Notably, students from the arts stream demonstrated more favourable attitudes compared to their peers in the science and commerce streams.

Katoch (2017) explored secondary school teachers' attitudes toward creative teaching, with a particular focus on variations across gender and school management type. The investigator utilised a survey method to gather data from a randomly selected sample of 94 teachers working in secondary schools across Shimla, Himachal Pradesh. The Attitude Scale of Creative Teaching, developed by R.P. Shukla (2012), served as the primary instrument for data collection. To compare mean scores between teachers from government and private institutions, a t-test was conducted. The findings revealed no statistically significant differences in attitudes toward creative teaching based on either the type of school management or the gender of the participants.

Gupta (2018) investigates secondary school teachers' attitudes towards creativity and their awareness of various elements of creativity. For the study, 659 secondary school teachers from western Uttar Pradesh, India, were surveyed. Teachers' attitudes on nurturing creativity were examined using a standardised scale developed by the researcher.

Parametric statistics, such as the t-test, were used to analyse the data and draw conclusions. The study's findings indicate that secondary school teachers have a positive attitude towards creativity and a higher level of awareness about various dimensions of creativity, including knowledge about creativity, barriers to creativity, methods for enhancing creativity among students, misconceptions about creativity, and indicators of creativity.

Niwas (2018) explored the relationship between teaching competence and attitudes toward creative teaching among pre-service educators. Adopting a descriptive research design, the researchers selected a sample of 264 B.Ed. trainee teachers from 18 teacher training institutions in Garhwal, Uttarakhand, using simple random sampling. Data were collected using two standardised instruments: the General Teaching Competency Scale developed by B.K. Passi and M.S. Lalita (1994), which includes 21 items across five domains—planning, presentation, closure, evaluation, and classroom management—and the Attitude Scale of Creative Teaching by R.P. Shukla (2012), a 30-item Likert scale. The findings revealed a positive correlation between teaching competence and attitudes toward creative teaching. Notable differences emerged based on pedagogical background, with science stream trainees exhibiting more favourable attitudes than those in the humanities. Additionally, significant variations were observed across gender, caste, and educational qualification. Female trainees, general category participants, and those holding postgraduate degrees demonstrated more positive attitudes toward creative teaching compared to their male, reserved category, and undergraduate counterparts.

Gaur (2019) investigated the association between primary school teachers' attitudes toward creative teaching and their levels of emotional intelligence, while also examining the influence of demographic variables such as gender, school location, school management type, teaching experience, and curriculum type. Data were collected from a sample of 760 primary educators using two standardised instruments: the Attitude Scale of Creative Teaching (ASCT) developed by R.P. Shukla (2012), and the Emotional Intelligence Scale (EIS) by A. Hyde, S. Pethe, and U. Dhar. The findings indicated no significant correlation between teachers' attitudes toward creative teaching and their

emotional intelligence. Moreover, none of the demographic factors—gender, curriculum stream, school locality, management type, or years of service—showed a significant impact on either variable under investigation.

Kaur and Sankhian (2020) examined the relationship between teacher effectiveness and attitudes toward creative teaching among secondary school educators. The study sample consisted of 100 government secondary school teachers, 50 of whom were permanent and 50 of whom were contractual, in Chandigarh, Union Territory. The tools for data collection were the Teacher Effectiveness Scale, developed by Kulsum (2010), and Shukla's (2008) Attitude Scale towards creative teaching. Analysis revealed no differences in teacher effectiveness between regular and contractual teachers across all measured dimensions. However, a noteworthy positive correlation was identified between overall teacher effectiveness and attitudes toward creative teaching. In particular, the domain of interpersonal relations demonstrated a strong association with teachers' creative teaching attitudes.

Mahato and Sen (2023) conducted a study to assess the Attitude towards Creative Teaching (ACT), Context Knowledge (CK1), and Technological Pedagogical Content Knowledge (TPCK) of pre-service mathematics trainee teachers. The descriptive survey method was employed, and 100 pre-service mathematics trainee teachers in West Bengal participated in the study through random sampling. Data were collected using two standardised scales: the Attitude Scale of Creative Teaching (ASCTs), developed by Shukla (2016), and the Technological Pedagogical Content Knowledge Scale (TPACK-Math), developed by ÖNAL (2016). The data analysis, using t-test and Mann-Whitney U test, indicates that Contexts Knowledge (CK1) and Technological Pedagogical Content Knowledge (TPCK) of the Pre-Service Mathematics Trainee Teachers are independent of gender and location. The study revealed that gender and geographical background—specifically, whether pre-service mathematics teachers were male or female, or from urban or rural settings—did not significantly influence their attitudes toward creative teaching.

Dar and Rather (2024) conducted a study investigating the relationship between Creative Teaching Attitude and Teaching Competence among prospective teachers. The research specifically focused on comparing individuals with high and low levels of creative teaching attitude in terms of their overall teaching competence. Utilising a multistage random sampling method, the study selected 350 prospective teachers from multiple teacher training institutions across the Kashmir Valley. The participants were evenly divided into two groups, with 175 classified as having high potential and 175 as low. The tools used for data collection were the General Teaching Competence Scale by Vimal Vadushy (2020) and the Attitude Scale of Creative Teaching by R.P. Shukla (2008). The study found a significant difference in teaching competence between prospective teachers with high and low creative teaching attitudes, with teachers having a higher creative teaching attitude reflecting better teaching competence.

2.3 Studies Related to Teacher Self-Efficacy

2.3.1 Studies conducted abroad

Madden-Szeszko (2000) examined the variables contributing to Teacher Efficacy. The variables considered for the study were the burnout effect, overall self-efficacy, and demographic variables. The study surveyed 73 teachers from a suburban New York school district. The Teacher Efficacy Scale, Maslach Burnout Inventory, Multiple Affected Adjective Checklist-Revised, Self-Efficacy Scale, and demographic questionnaire were employed for data collection. The study reveals that teacher burnout was a major predictor of personal and overall teacher efficacy. Personal accomplishment was found to be positively related to teacher efficacy. The increased professional development of teachers is correlated with increased teacher efficacy, and the general self-efficacy of teachers has been found to be a strong predictor of personal teacher efficacy.

Beatty (2002) studied teacher self-efficacy and pupil control ideology. The test was administered to middle school teachers from four urban school districts in the Commonwealth of Virginia. A total of 161 teachers from 13 middle schools across four

districts took part in the study. The study findings showed no relationship between teacher efficacy and pupil control ideology. However, the results showed that female middle school teachers in urban areas had higher levels of self-efficacy than their male counterparts.

Kim (2007) explored preschool science teachers' self-efficacy and the contributing factors to this belief. A sample of 263 early childhood teachers from Korea was chosen to participate in the study. These teachers have worked in private and public kindergartens, as well as private-public and cooperative day care centres. The Science Teaching Efficacy Belief, the Scale of Emotional and Material Support from Teacher Institutions, and the Demographic questionnaires were utilised. Study reveals that teachers' education had a direct, positive effect on their self-efficacy in teaching science. Reinforcement for good practice in the form of support from administrators, colleagues and teaching resources has also shown a positive effect on the teacher's self-efficacy.

Jimison (2010) investigated the impact of teachers' self-efficacy on students' academic achievement with emotional disturbance. The sample consisted of seventeen teachers of students with emotional disturbance teaching in a public school. To measure teachers' self-efficacy, the Teachers' Sense of Efficacy Scale, a 24-item, five-point scale by Moran and Hoy (2001), was used. The study found a statistically significant correlation between teachers' self-efficacy and student achievement. Among the subscales, efficacy in student engagement was highly correlated with teacher self-efficacy.

Abu-Tineh et al. (2011) explored the relation between teacher self-efficacy and classroom management styles in Jordanian schools. The study employed a quantitative approach and utilised a survey design. A total of 566 school teachers from Jordan participated in the study, comprising 319 elementary and 247 secondary educators. Participants were selected using a stratified random sampling to ensure representation across educational levels. The study revealed that teachers rated their personal teaching efficacy higher than their general teaching efficacy. In addition, teachers who participated in this study employ the

instructional classroom management style more frequently than the behaviour management and people management styles. Lastly, personal teacher efficacy has the strongest and most significant relationship with each classroom management style and classroom management styles as a whole. However, the study revealed that general teacher efficacy did not show significant correlations with any specific classroom management style, nor with the overall construct of classroom management styles.

Swan et al. (2011) study examined the change in teachers' self-efficacy from their first to their third year of teaching. The study consisted of 34 student teachers from the Ohio State University as its sample group. The researchers assessed student teachers' self-efficacy using the Teacher Self-Efficacy Scale developed by Tschannen-Moran and Hoy (2001), administering it at four points: upon completion of their teacher training, and at the end of their first, second, and third years of professional teaching. The results indicated that self-efficacy levels were highest immediately after completing their training program and reached their lowest point after the first year of teaching. Among the measured domains, perceptions of self-efficacy related to student engagement were consistently the weakest.

Achurra and Villardón (2012) investigated the relationship between teachers' self-efficacy beliefs and students' perceptions of learning. The study drew its sample from the Universities of Deusto in Spain and Temuco in Chile, including 71 educators and 200 students. The College Teaching Self-Efficacy Scale was administered to the teachers; this instrument consists of 44 items covering four areas of university teaching: student involvement in learning, lecture preparation and planning, interaction with students, assessment of learning, and the teaching role itself. The study's analyses show that teachers have high self-efficacy. Nationality affects teachers' self-efficacy. Chilean teachers demonstrated stronger overall self-efficacy than their Spanish counterparts, particularly in areas such as facilitating student engagement, fostering classroom interaction, and conducting assessments. The researchers believe that this could be due, in part, to the highly self-critical nature of Spanish teachers. In addition, the study found that students of

teachers with higher overall efficacy tend to have higher levels of perceived learning than students of teachers with lower self-efficacy.

Ford (2012) investigated the connection between teacher self-efficacy and educators' capacity to motivate students within the classroom setting. The study identified five areas of research: teacher efficacy in motivating students, teachers' perceptions of power, support for administrative duties, teacher morale, and the teaching methods employed by teachers. The study participants consisted of 250 teachers in two urban school districts in Ohio, USA. The study found that teacher self-efficacy affects student motivation, and that teachers' years of teaching experience, their gender, and the grade level at which they teach play a substantial role in determining their self-efficacy. Older and more experienced teachers had higher efficacy when motivating students. Elementary teachers had higher levels of self-efficacy compared to middle and secondary-level teachers, and female teachers had significantly higher efficacy in motivating students compared to their male counterparts.

Guo et al. (2012) examined how teacher self-efficacy, their education, and years of experience affected teacher classroom practices, particularly in areas such as teacher support for student learning and time spent on academics, with regard to students' literacy skills. The study comprised 1043 teachers, teaching fifth-grade students. A survey questionnaire was used to measure teacher self-efficacy by determining how teachers believe they can affect their students' achievement. Results showed that, compared to teachers with lower self-efficacy, teachers with greater self-efficacy showed more support and created a more positive classroom environment; furthermore, their students possessed stronger literacy skills. The academic time spent by teachers decreased as they gained experience and higher self-efficacy.

Mojave and Tamiz (2012) explored the relationship between teacher self-efficacy (TSE), student motivation, and academic achievement. Participants included 80 senior high school teachers from four cities across Iran, along with a randomly selected sample of 150 senior high school students. Data were gathered using two instruments: the Teacher Self-

Efficacy scale, developed by Tschannen-Moran and Hoy (2001), and the researcher-developed Students' Motivation and Achievement questionnaires. Results indicate a moderately positive relationship between teacher self-efficacy and student motivation. In addition, teacher self-efficacy correlates positively with student achievement. The study also suggests that teacher self-efficacy can influence students' motivation and achievement in various contexts and is therefore context–dependent.

Punia and Kaushik (2012) study was to compare the perceived self-efficacy of Indian and Bhutanese teachers. The study surveyed 1,024 Indian and Bhutanese teachers (445 from India and 579 from Bhutan) to investigate and compare their self-perceived efficacy. Kumar and Mutha's inventory, consisting of 69 items, served as the primary instrument for the study. Regarding self-perception of efficacy, the Bhutanese teachers rated themselves significantly higher than their Indian counterparts. Additionally, the study found no significant differences in efficacy beliefs based on the number of years of teaching experience, regardless of the country in which the teaching experience occurred.

Ryan et al. (2015) study focuses on the self-efficacy of teachers, how it differs between elementary and middle school teachers, and its implications for classroom quality. The sample consisted of European-American teachers teaching students in 5th to 7th grade. A total of 101 teachers participated in the survey, and 96 of those teachers were observed simultaneously teaching two distinct classes. The exploratory factor analysis indicated that teachers' confidence in managing peer relationships is distinct from their perceived efficacy in classroom management, instructional practices, and student engagement. Teachers reported lower levels of self-efficacy when it came to handling peer interactions. Furthermore, middle school teachers demonstrated notably lower self-efficacy in both classroom management and peer relations than their elementary school counterparts.

Gonzalez et al. (2016) examined teacher self-efficacy and its relation with teacher job-related stress and the subject matter assigned. The High Stakes Testing on Self-Efficacy and Teacher Stress Survey (Christian, 2010) was used on a convenience sample of 145 teachers to collect quantitative data. The qualitative data were collected through focus-

group sessions at the elementary, middle, and high school levels. The results indicated that high-stakes or non-high-stakes teaching did not affect teacher self-efficacy. However, teacher job-related stress and self-efficacy are related; as teacher stress rose, their self-efficacy fell. Teachers cited lack of time, curriculum modifications, and testing of special education pupils as factors that contribute to their job-related stress.

Hascher and Hagenauer (2016) studied the relationship between student teachers' self-efficacy, their openness to theory, emotions, and classroom behaviour during the training programme. The study sample comprised 117 pre-service students at an Austrian university who were training to teach in secondary education. Findings reveal a correlation between the respondents' openness to theory, self-efficacy, and emotions, but no correlation with autonomy support. There was a strong correlation between self-efficacy and emotional experiences. Self-efficacy was found to be a predictor of the satisfaction student teachers draw from the pre-service training programme.

Pfitzner-Eden (2016) examined how teacher self-efficacy (TSE) changes over time in two cohorts of pre-service teachers (advanced and beginning). The first group (Sample 1) had a total of 559 beginning pre-service teachers. The second group (Sample 2) consisted of 352 pre-service teachers who had completed a substantial portion of their studies. This study measured teacher self-efficacy using the German version of the Teacher Self-Efficacy Scale (TSES). The study revealed that both cohorts experienced significant changes in self-efficacy during their undergraduate studies. However, for beginning pre-service teachers, this improvement happened only in one dimension of teacher self-efficacy (TSE), namely, classroom management, while the other two dimensions remained intact. Teacher self-efficacy increased for classroom management and instruction in advanced pre-service teachers, while student engagement remained unchanged. Thus, teacher self-efficacy changes were not consistent across TSE measures for both cohorts. In general, gains in teacher self-efficacy during the programme were associated with decreased desire to quit among pre-service teachers.

Shahzad and Naureen (2017) investigated the extent to which teacher self-efficacy impacted the academic achievement of secondary school students. For the study, sixty (60) secondary school teachers and one hundred (100) secondary school students were randomly selected in Quetta, Pakistan. The teacher self-efficacy questionnaire was used to collect data, and a test was developed to measure students' academic achievement. The study revealed that teacher self-efficacy has a positive impact on students' academic achievement.

Poulou et al. (2018) studied teacher self-efficacy and its relationship with teacher practices in the classroom. The instruments used in the study were the Teachers' Self-Efficacy Scale by Tschannen-Moran and Hoy (2001) and actual instructional and behavioural management practices, assessed using the Classroom Strategies Assessment System (CSAS). Participants consisted of 58 in-service teachers from 17 public, urban schools in central Greece (11 preschools, five primary and one secondary school). Females made up 56.9% of the sample, while males accounted for 43.1%. The majority of teachers were between the ages of 31 and 40 (44.82 per cent) and 41 to 50 (39.93 per cent), and had between 11 and 20 years of teaching experience (56.89 per cent). Findings show that teachers, regardless of gender or teaching experience, had high levels of self-efficacy in the domains of instruction, student engagement, and classroom management.

Barni et al. (2019) study aimed to understand the relationships between teachers' values and their self-efficacy. Precisely, to determine the extent to which these relationships are moderated by teachers' controlled and autonomous motivations for teaching. A self-report questionnaire was distributed among 227 Italian high school teachers. The findings indicated that teachers' personal values were positively linked to their perceived self-efficacy, regardless of their intensity of motivation for teaching. Teacher values such as openness to change and self-transcendence, and their relation to teacher self-efficacy, varied depending on the teachers' motivations. Stronger associations were found for these relationships when teachers experienced less external pressure and greater autonomy in teaching.

Hajovsky et al. (2020) examined teachers' self-efficacy and its role in developing teacher-student relationships. The study sought to determine whether teachers' beliefs in their own self-efficacy could serve as reliable predictors of the quality of teacher-student relationships, specifically in terms of emotional closeness and interpersonal conflict. For the study, 885 students from the second to sixth grades were selected using conditional random sampling. The study found that teachers who believed in their efficacy had higher ratings of closeness and lower rates of conflict with students. Teachers with higher self-efficacy reported fewer conflicts with students across all grade levels.

Lazarides et al. (2020) studied the development of teacher self-efficacy from the initial stages of their careers through to mid-career. A total of 395 Australian educators, spanning both primary and secondary levels, participated by completing the questionnaire. Teacher self-efficacy for classroom management was assessed using adapted questions from Tschannen-Moran and Woolfolk Hoy's Teachers' Sense of Efficacy Scale (2001). Longitudinal structural equation models revealed a favourable relationship between teachers' self-efficacy for classroom management and several characteristics of their perceived classroom management, particularly during their early careers. The favourable correlation between self-efficacy and classroom management was reduced between early and mid-career due to excessive demands in the early career.

Hu et al. (2021) examined the relationship of teacher self-efficacy with the quality of the classroom process and children's social skill development. The study participants were 5,628 randomly selected preschoolers and their teachers from 180 classrooms in Guangdong Province, China. Teacher self-efficacy was assessed in the areas of instructional strategies (EIS), classroom management (ECM) and student engagement (ESE). Classroom process quality was evaluated by Pianta et al. (2008) through the Classroom Assessment Scoring System (CLASS), which encompasses three key domains: emotional support, classroom management, and instructional support. The study found a significant correlation between the three subscales of teacher self-efficacy and the three

domains of the Classroom Assessment Scoring System. Further, classroom organisation was a mediating factor between teachers' self-efficacy and students' social skills.

Chang et al. (2022) conducted a longitudinal study to investigate how teacher self-efficacy mediated teachers' social goals on perceived classroom engagement. The study sample consisted of 497 teachers from primary, secondary, and junior schools in Canada. The study revealed that teachers' social goals were good predictors of their sense of self-efficacy and student engagement in the classroom. Additionally, it was found that teachers' self-efficacy in engaging students was the most significant mediator of the effects of teachers' social goals on students' classroom engagement.

Pressley and Rangel (2023) conducted a study to examine teacher self-efficacy one year after the start of the COVID-19 pandemic. The investigators employed the convenience and snowball sampling techniques to enlist teachers to complete an electronic survey. The study involved 316 elementary school teachers from the United States, who completed the Teacher Self-Efficacy Scale to assess their perceived efficacy in instructional practices and student engagement. In addition, the survey also included a subscale from the Maslach Burnout Inventory Survey (MBI-ES) and the Teachers' Perceptions of Administrative Support Scale. The study findings indicate that mastery experiences significantly predict teacher self-efficacy regarding total, instructional, and classroom management. It also indicated that administrative support was a significant factor in teacher self-efficacy. Furthermore, results suggest that stressors and anxiety experienced by the teachers may influence their self-efficacy.

Calkins (2024) study explored the relationship between teachers' self-efficacy and teacher motivation. It examined teachers' motivation to enter the teaching profession and what role teacher self-efficacy plays in it. The investigators utilised data from TALIS 2018, which involved 1933 teachers in the United States with six or more years of teaching experience. The results show that teacher motivation, particularly intrinsic and altruistic motivation for becoming a teacher, is positively related to teacher self-efficacy across four subscales: classroom management, instruction, student engagement, and multicultural

classrooms. The most significant relationship was between teacher motivation and self-efficacy in multicultural classrooms, while the weakest relationship was between teacher motivation and self-efficacy in classroom management. Furthermore, extrinsic motivation was not a significant factor in teachers' self-efficacy.

Octoria et al. (2024) examine the impact of teachers' self-efficacy and teaching commitment on the performance of pre-service teachers. The study involved 481 individuals from Teacher Professional Education at a state institution in Indonesia. Data regarding teacher self-efficacy and teaching commitment were obtained by a questionnaire validated by the Directorate for Education and Skills, Organisation for Economic Co-operation and Development. Documentation of pre-service teachers' teaching practice scores was employed to evaluate their performance. Descriptive statistics indicated that 19% of pre-service teachers exhibit high teacher self-efficacy, whereas 18% demonstrate high teaching commitment. Multiple linear regression analysis revealed that pre-service teacher performance is significantly influenced by teacher self-efficacy, and the combined effect of teaching commitment and self-efficacy also impacts performance. High self-efficacy teachers are better at recognising learning problems, handling their classrooms, and meeting student goals.

Pikić Jugović et al. (2025) examined the mediating role of teacher self-efficacy between social and emotional competencies and burnout in early-career teachers. A total of 657 early-career Croatian subject teachers working in Croatian state elementary schools (81.1% female) participated in this study. Educators had an average age of 30.58 years and an average of 10.5 years of teaching experience, teaching different subjects in the school. The Teacher Self-Efficacy Scale from the Teaching and Learning International Survey (TALIS) was utilised to evaluate teacher self-efficacy. The scale evaluates perceived self-efficacy in three areas: classroom management, instructional efficacy, and student engagement. Structural equation modelling (SEM) was employed to evaluate models of proposed relationships. Teacher self-efficacy served as a mediator variable in the relationship between social and emotional competencies and burnout. Additionally, early-

career educators who exhibit higher teacher self-efficacy experience enhanced occupational well-being.

2.3.2 Studies conducted in India

Ravi (2013) examined the teacher's attitude toward teaching and its relationship with the teacher's self-efficacy beliefs. A descriptive survey method was used, and the study sample comprised 200 secondary school teachers. The Teacher Self-Efficacy Scale (TES) by Albert Bandura and the Attitude Scale toward the Teaching Profession (ATP) by Umme Kulsum were used to gather the data. The study reveals that teachers' attitudes towards various aspects of teaching, including academic, administrative, social, psychological, and co-curricular roles, as well as their overall attitude towards teaching, are positively related to self-efficacy. The study concludes that the teacher's attitude towards teaching is a significant factor in influencing the teacher's self-efficacy.

Amanulla and Aruna (2014) study was to determine the impact of teacher efficacy on the professional development of higher secondary school teachers in Kerala, India. A total of 350 teachers participated in the study. The data were collected using the Teacher Efficacy Scale (Woolfolk & Hoy, 1990) and the Professional Development Questionnaire for Secondary School Teachers. Teacher efficacy was found not to have a significant impact on teachers' professional development, regardless of gender, school management type, and experience. When it comes to gender, type of school management, and experience, the results revealed significant differences in teacher efficacy between government and private school teachers, with private school teachers showing higher levels of teacher efficacy. There was no significant difference, however, between male and female teachers and between teachers with more and less experience with regard to teacher efficacy.

Sethi and Mittal (2015) examined the self-efficacy of senior secondary school teachers. The sample consisted of 103 teachers (46 males and 57 females) selected through a simple random sampling technique. The self-efficacy of school teachers was measured using a standardised scale of occupational self-efficacy developed by Pethe et al. (1999).

Results suggested that self-efficacy did not differ between public and private school teachers. The difference between males and females was not statistically significant in terms of self-efficacy among teachers. Additionally, it was observed that commerce school teachers had the highest level of self-efficacy, Arts subject school teachers had a lower level of self-efficacy and science teachers' self-efficacy was shown to be the lowest.

Jocelyn and Sammanasu (2016) conducted a descriptive study to explore teachers' personal and teaching efficacy in Tiruchirapalli, India. The Teacher Self-Efficacy Scale (Woolfolk & Hoy, 1990) was used as the research instrument to evaluate the degree to which teachers believe they can accomplish their work-related tasks and achieve their work-related goals. The study found teachers' personal efficacy to be higher than their teaching efficacy. In addition, female teachers have a higher sense of teaching and personal efficacy than their male counterparts. Compared to the science stream teachers, those working in the arts stream reported having higher levels of personal efficacy. The study suggests that teachers' teaching efficacy can be enhanced by providing teachers with the appropriate training and motivation, particularly regarding the utilisation of ICT.

Ansari (2017) investigated the influence of self-efficacy and spiritual values on school teachers' life satisfaction. The study sample consisted of 120 school teachers from multiple districts across Uttar Pradesh, India. The Teacher's Self-Efficacy Scale (Ansari et al., 2017), the Spiritual Values Scale (Hussain et al., 2015), and the Life Satisfaction Scale (Diener et al., 1985) were used to collect data. Using Pearson product-moment correlation, it was determined that self-efficacy, spiritual values and life satisfaction are all positively and significantly correlated. The results indicate that teacher self-efficacy and spiritual values are influencing factors in school teachers' life satisfaction.

Lamture and Gathoo (2017) compared the self-efficacy of general teachers and resource teachers in Mumbai, India, regarding the education of children with disabilities. The survey-based descriptive study employed Bandura's 'Teacher Self-Efficacy Scale' (TSES). The study enlisted the participation of 60 general and 60 resource teachers from schools that were part of the Sarva Shiksha Abhiyan (SSA) in Mumbai. The results indicate that

resource teachers have significantly higher self-efficacy in educating children with special needs than general teachers. Higher teacher self-efficacy was particularly evident in influencing decision-making, utilising school resources, and enlisting parental and community involvement in the education of children with disabilities.

Menon and Sobha (2017) investigated teacher efficacy among secondary school educators in Kerala, employing the Teacher Efficacy Scale developed by Woolfolk and Hoy (1990). The study sampled 350 teachers and found that, overall, teachers exhibited a moderate level of efficacy. Notably, significant differences emerged based on the type of school management and years of teaching experience, while no significant variation was observed concerning gender, geographic location, or subject specialisation.

Sehgal et al. (2017) explored teacher effectiveness in terms of self-efficacy, collaboration, and principal leadership. The study surveyed 575 secondary school teachers and 6,020 students (grades 6–12) across 25 privately managed schools in India. Teachers rated their self-efficacy, collaboration, and principal leadership, whereas each teacher's effectiveness was determined by around ten students whom the corresponding teacher taught. SEM-PLS was used to evaluate the data. The findings indicated a favourable relationship between teacher self-efficacy and three characteristics of teacher effectiveness: the teacher's delivery of course information, the teacher's facilitation of teacher-student interactions, and the teacher's regulation of students' learning. Additionally, both collaboration and principal leadership were found to be positively associated with teacher self-efficacy. The study's findings suggest that schools should prioritise teacher self-efficacy, cooperation, and principal leadership to enhance their effectiveness in instruction delivery, student interaction, and learning management.

Sharma and Kaur (2017) conducted a study to examine the self-efficacy of women teachers teaching at the school and college levels. The study adopted a descriptive survey design and utilised multistage random sampling to draw participants from five randomly selected districts across Punjab, India. The sample for the study comprised 500 married women teachers teaching at the school and college levels. The study found that school and

college teachers did not differ significantly in their self-efficacy, and most of the teachers reported an average level of teacher self-efficacy.

Sharma and Singh (2017) investigated the relationship between teacher self-efficacy and the transformational leadership style of principals. For the study, a total sample of 20 school principals with a minimum of 7-8 years of experience and 100 senior-level teachers with not less than 5 years of experience were selected. The above variables were measured using the Teacher Self-Efficacy Scale by Schwarzer, Schmitz, and Dayton and the Leadership Questionnaire by Bass and Avolio. The data were analysed using the techniques of Correlation and Regression. Self-efficacy was found to be positively related to idealised influence, individualised consideration, contingent reward, management by exception, and laissez-faire leadership.

Begum and Hamzah (2018) examined the relationship between teacher self-efficacy and teaching reading comprehension skills among Secondary school teachers in Telangana, India. Through a simple random technique, 192 English language teachers from all State Secondary Schools were selected for a quantitative survey study. Two questionnaires were utilised for the study: The Teacher Self-efficacy Scale (TSES) and the Teaching Reading Comprehension Skills, adapted from the Progress International Literacy Study (PIRLS). The results indicate a significant correlation between self-efficacy and the teaching of reading comprehension skills among secondary school teachers. Based on the findings of this research, the investigators recommend that school administrators implement a policy aimed at enhancing teachers' confidence in their ability to improve students' reading comprehension and create more effective reading courses and classroom activities.

Bhullar (2019) conducted a descriptive survey to explore the relationship between self-efficacy and teaching competency among secondary school educators. The study involved a sample of 200 teachers randomly selected from both government and private institutions in Amritsar district, Punjab. Data were collected using the General Teaching Competency Scale (Passi & Lalitha, 2011) and the Teacher Efficacy Scale (Kumar, 2012). The results indicated that private school teachers demonstrated significantly higher levels of both

teaching competency and self-efficacy compared to their counterparts in government schools. Moreover, a strong positive correlation was observed between teaching competency and self-efficacy, with specific dimensions such as instructional presentation, lesson closure, and evaluation showing notable associations**.**

Pooja (2019) studied the relationship between occupational self-efficacy and job satisfaction. The study sample consists of 60 teachers, 30 government school teachers (15 male and 15 female) and 30 private school teachers (15 male and 15 female), who were chosen using a purposive sampling method. The data was collected using the Job Satisfaction Scale by Amar Singh and T.R. Sharma and the Occupational Self-Efficacy Scale by Pethe et al. (1999). Using Pearson's correlation method and two-way Analysis of Variance, the data was analysed. The obtained result indicates that job satisfaction and occupational self-efficacy are positively related. The result also indicates that the level of occupational self-efficacy does not differ between government and private school teachers, nor is there a significant gender difference in occupational self-efficacy.

Swarnalatha (2019) explored the effect of teachers' self-efficacy on their students' academic achievement. The objective of the study was to determine the effect of teacher self-efficacy on high school students' academic achievement. Ex-post facto research design was employed to study the Government High Schools of Khamman district, Telangana. The participants included 236 high school teachers and 2842 high school students. The data collection instrument was the Telugu version of the Teachers' Sense of Efficacy scale (TSES) developed by Tschannen-Moran & Hoy (2001). The study revealed that teacher self-efficacy had a positive relation with high school pupils' academic achievement.

Rani (2020) study examined the relationship between teacher self-efficacy and the occupational stress and spiritual intelligence of female teachers. The descriptive study employed a multistage random sampling technique and consisted of 500 female teachers randomly selected from the five districts of Punjab. Three questionnaires were used for the study: the Teacher's Occupational Stress Scale by Jamal and Raheen (2012), the

Teacher Self-Efficacy Scale by Sharma (2017), and David B. King's Spiritual Intelligence Self Report Inventory (2008). The results from the regression model indicate that both spiritual intelligence and self-efficacy of female teachers can predict work stress independently and in combination. The study reveals that teacher self-efficacy and spiritual intelligence are the most significant factors in predicting work-related stress among female teachers.

Apat and Swain (2021) explored the self-efficacy beliefs of teachers in the early stages of their careers, as well as the sources of their efficacy beliefs. The research was carried out in the Keonjhar district of Odisha, and seventeen probationary elementary school teachers were selected through a purposive sampling technique to participate in the study. To collect data, a semi-structured interview was followed by a Focus Group Discussion with the teachers. The study revealed that the teachers understand their students adequately and that knowledge helps them devise personalised strategies. The study also revealed that teachers feel confident in their effectiveness but do not refer to students' learning outcomes when evaluating themselves as teachers. The source of their efficacy beliefs lies in their familiarity with students, the experience of positive behavioural change in students and their personality traits.

Khan et al. (2024) investigated how teacher self-efficacy mediates the relationship between principal instructional leadership and job satisfaction among primary school teachers. Drawing on data from 320 educators employed by the Municipal Corporation of Delhi, the study utilised an online survey and validated measurement tools. Structural equation modelling via AMOS 22.0 revealed that teacher self-efficacy significantly mediates between instructional leadership and job satisfaction. The findings also highlighted strong positive associations between principals' instructional leadership and teachers' self-efficacy, as well as between self-efficacy and job satisfaction. The study highlights the importance of instructional leadership in promoting both teacher confidence and professional fulfilment.

2.4 Overview of the Review of Related Literature

A review of the empirical research on past studies reveals that creativity-fostering teacher behaviour has been examined along with several other variables. Creativity-fostering teacher behaviour has been examined in relation to teacher personality traits. Studies by Lee and Kemple (2014), Avadhanam and Chand (2016), Ayyildiz and Yilmaz (2021), and Sahin (2021) have reported the influence of personality traits on creativity-fostering teacher behaviour. Teacher personality was also a predictor of teachers' creativity-fostering behaviours **(**Chan & Yuen, 2014). The studies support the claim that teachers who are open to experience show significantly higher levels of creativity-supporting behaviour in the classroom. Students' creativity has also been linked to creativity-fostering teacher behaviour in the classroom, as studies by Forrester and Hui (2007) and Sahin (2021) found that student creativity is positively correlated with creativity-fostering teacher behaviour. Teacher beliefs about creativity, as reported by Hong and Hartzell (2009) and Chan and Yuen (2014), were found to be a predictor of teacher creativity-fostering behaviour.

Teachers' creative self-efficacy and teacher efficacy have also been examined, and studies by Cayirdag (2017), Al Dababneh et al. (2019), Liu and Wang (2019), and Huang (2022) have all indicated a positive relationship. However, creative self-efficacy predicts teacher creativity-fostering behaviour better than teacher self-efficacy (Cayirdag, 2017). Variables such as student engagement (Kuril et al., 2021), student self-esteem (Yadav & Rekharani, 2021), student self-efficacy and intrinsic goal orientation (Hong & Hartzell, 2009; Maun et al., 2023; Setiamurti et al., 2023) were all found to be positively correlated with teacher creativity fostering behaviour. The research findings from de Bruin and Harris (2017), Huang (2022), and Da'as (2023) studies indicate that school and principal leadership are related to creativity-fostering teacher behaviour and underscore the importance of a supportive ecological approach to creativity in education.

Teacher motivation was also an essential variable in influencing teacher creativity-fostering behaviour. Teachers with high intrinsic motivation for creativity tend to promote student creativity through their teaching practices (Hong & Hartzell, 2009). Furthermore,

intrinsic motivation has been identified as the most significant predictor of innovative behaviour among teachers (Avadhanam & Chand, 2016). A recent study by Dahiya and Malik (2024) has found a positive correlation with the happiness index. The study underscores the critical role that teachers' psychological well-being plays in impacting their classroom management behaviour.

Levels of creativity fostering teacher behaviour have been found to differ across studies. Konstantinidou and Zisi's (2017) study observed low levels of creativity-fostering teacher behaviour and suggested that the factors behind this could be a lack of academic education and professional development of teachers in areas of creativity, as well as a rigid curriculum that limits teachers' ability to explore ways of teaching for creativity. In contrast, studies by Al Dababneh et al. (2019) and Apak et al. (2021) found creativity-nurturing behaviour among teachers to be high. They asserted that teachers with higher creativity-nurturing behaviour were more prepared for 21st-century classroom management.

Teacher creativity-fostering behaviour has also been examined in relation to several demographic variables. Concerning teaching experience and the creativity-supporting behaviour of teachers, there have been differing results. A moderate correlation was reported between years of teaching experience and the overall creativity-fostering behaviour of teachers by Hondzel (2013). A negative relationship exists between teaching experience and creativity-fostering behaviour, with more experienced teachers demonstrating less creativity-supporting behaviour in Cayirdag’s (2017) study. Moreover, no relation to teaching experience as found by Forrester and Hui (2007), Avadhanam and Chand (2016), and Tok (2022). Differing results were also seen regarding gender. Adeeb et al.'s (2019) study indicated significant gender differences, with females showing more favourable behaviour towards fostering children's creativity. However, no significant difference was observed regarding gender in studies conducted by Forrester and Hui (2007), Hondzel (2013), Avadhanam and Chand (2016), and Tok (2022). Avadhanam and Chand's (2016) study reported teacher qualification in the TET (Teacher Eligibility Test) as a significant predictor of innovative teacher behaviour. However, studies by Forrester

and Hui (2007), Hondzel (2013), and Tok (2022) did not find teacher qualification, age, and class size to be significantly related to teacher creativity-fostering behaviour.

Creative teaching attitude has also been examined by several researchers with Academic Achievement (Schacter et al., 2006), Teaching Competency (Niwas, 2018; Dar & Rather, 2024), Teacher Emotional Intelligence (Gaur, 2019), Teacher Effectiveness (Kaur & Sankhian., 2020), and Principal Leadership (Chen & Yuan, 2021). A review of the studies reveals that, although teachers' attitudes towards creativity were favourable (Gupta, 2018), a lack of understanding and experience regarding creativity in education was one of the most frequently stated inadequacies among pre-service teachers (Akturk & Celik, 2020; Alkus & Olgan, 2014). Hurdles to actual creative teaching in class also include an overcrowded curriculum, insufficient teaching time, exam pressures, and an unsupportive social and cultural setting (Wang & Kokotsaki, 2018). Additionally, creative teaching is a complex task that requires adequate support for teachers to engage in creative practices (Hosseini, 2014; Huang et al., 2018).

Differing results have been reported regarding gender and attitude towards creative teaching, as studies by Kaur (2015), Katoch (2017), and Gaur (2019) found no significant difference in the creative teaching attitude between male and female teachers. In contrast, significant differences were observed by Gupta and Jan (2018), Niwas (2018), Al Dababneh et al. (2019), and Mahato and Sen (2023) in their studies, where female teachers have shown a more positive attitude towards creative teaching. Differences in attitude towards creative teaching were also observed based on variations in their pedagogical backgrounds as research findings of Kaur (2015), Niwas (2018), Gupta and Jan (2018) showed teachers from the science stream showing a more positive attitude towards creative teaching, in contrast to Kaur's (2016) findings, where arts teachers showed a more favourable attitude towards creative teaching. Furthermore, creative teaching attitude was also studied with other demographic variables such as teaching experience (Kettler et al., 2018; Gaur, 2019), locality of the school (Kaur, 2015; Huang et al., 2018; Gaur, 2019; Mahato & Sen, 2023) and type of school (Katoch, 2017; Gaur,

2019). However, there has been no consensus among these studies regarding the impact of teaching experience, school locality, and school type on creative teaching attitudes.

Teacher self-efficacy has also been investigated in relation to the stages of teachers' teaching careers (Swan et al., 2011; Pfitzner-Eden, 2016; Lazarides et al., 2020; Apat & Swain, 2021). However, the findings were inconclusive, as teacher self-efficacy changes were not consistent across the different stages of their careers. Regarding teacher self-efficacy and gender, studies by Amanulla and Aruna (2014), Sethi and Mittal (2015), Menon and Sobha (2017), Pooja (2019), and Poulou et al. (2019) reported that male and female teachers exhibited comparable levels of self-efficacy, with no statistically significant differences observed. In contrast, findings from Beatty (2002), Ford (2012), and Jocelyn and Sammanasu (2016) indicated that female educators tend to demonstrate higher self-efficacy than their male counterparts. Concerning teacher self-efficacy and the type of school management and locality of the school, studies by Beatty (2002), Amanulla and Aruna (2014), Menon and Sobha (2017) and Pooja (2019) had differing conclusions. A difference in teacher self-efficacy regarding years of teaching experience was also observed (Menon & Sobha, 2017). Ford (2012) found that older and more experienced teachers had higher self-efficacy. In contrast, Punia and Kaushik (2012) and Amanulla and Aruna (2014) found no significant differences in efficacy beliefs with years of teaching experience.

2.5 Research Gap

It is apparent from the reviews of previous studies that the variables of creativity-fostering teacher behaviour, creative teaching attitude, and teacher self-efficacy have been explored along with several other variables. However, the relationship between these three variables has not been investigated so far. Studies measuring creativity-fostering teacher behaviour are relatively recent, as most studies were conducted after Soh's Creativity Fostering Teacher Index was constructed in 2000. Although few studies have been conducted in India examining teacher behaviour in the classroom, to the investigator's knowledge, no study has been conducted examining teacher creativity-fostering behaviour in Indian classrooms. Given the important role teachers play in fostering students'

creativity in classroom settings, it is imperative to examine teacher creativity-fostering behaviour, as “teachers' actions and reactions” (Soh, 2000, p.20) can either encourage or stifle student creativity.

Despite studies examining teachers’ attitudes towards creative teaching in India, the majority of these studies focused on pre-service teachers (Kaur, 2016; Niwas, 2018; Gupta & Jan, 2018; Mahato & Sen, 2023; Dar & Rather, 2024), and secondary school teachers (Katoch, 2017; Gupta, 2018; Kaur & Sankhian, 2020), with only very few studies on elementary school teachers (Gaur, 2019). Thus, there is a dearth of research on overall elementary school teachers’ attitudes toward creative teaching in general and particularly in Nagaland

Additionally, it was evident from the review of literature that studies on creative teaching attitude in India were conducted using the ‘Attitude Scale of Creative Teaching’ developed by R.P. Shukla (2012), which is based on E.P. Torrance’s (1963) Ideal Pupil checklist, which contains sixty-two traits based on studies of creative people. However, certain aspects of creative teaching, such as teachers’ attitudes toward pedagogy, personal qualities, intrinsic motivations, and classroom ethos, as mentioned by several creativity researchers (Palaniappan, 2004; Cremin et al., 2009; Bramwell et al., 2011), were not included in the scale. Therefore, it is imperative to examine teachers' attitudes toward creative teaching, taking into account all the factors deemed essential for measuring creative teaching.

Furthermore, the literature review indicates that prior research on creativity-fostering teacher behaviour predominantly employed qualitative methodologies, including observational techniques and mixed-method designs, often involving relatively small sample sizes (Forrester & Hui, 2007; Olawale, 2010; Hondzel, 2013; Konstandinidou & Zisi, 2017; Tok, 2022). As such, pure quantitative studies using inferential statistics are scarce. Research employing descriptive survey methods on larger sample sizes is needed to provide a clearer picture of the status of elementary school teacher creativity-fostering behaviour, which also leads to the generalisation of the results.

A substantial body of research has explored teacher self-efficacy, and empirical evidence consistently underscores its significance as a predictor of diverse educational outcomes. However, research exploring the relationship between teacher self-efficacy and creativity-fostering teacher behaviour remains limited, with most studies conducted in international contexts (Ozkal, 2014; Cayirdag, 2017). This gap underscores the need for further investigation, particularly within the regional framework of Nagaland and the broader Indian educational landscape.

Although the variables of creativity-fostering teacher behaviour, creative teaching attitude, and teacher self-efficacy have been studied in relation to various demographic variables, including gender, type of school management, and teaching experience, no conclusive inferences could be drawn. Furthermore, few studies have examined the professional qualifications of teachers (trained versus untrained) in relation to creativity-fostering teacher behaviour, creative teaching attitudes, and teacher self-efficacy. There is a lack of sufficient research to determine the impact of teacher professional qualification on their creativity-fostering behaviour, attitude towards creative teaching, and self-efficacy, leaving room for further investigation.

Earlier, creativity was regarded as a thinking skill; consequently, most creativity research in India was focused on measuring creativity levels. However, NEP 2020 adopts a holistic approach to creativity (Sharma & Gupta, 2021). It views creativity as a potential that every child possesses and a skill that should be nurtured in schools. This calls for a change in how creativity is approached in education, for which the teacher's role is indispensable. The researcher has observed a dearth of empirical research measuring teachers' attitudes, beliefs, and behaviour regarding the fostering of creativity in classrooms, and the present study is a humble attempt to address this gap.

Attitudes are widely acknowledged to influence behaviour, whereas self-efficacy, being intrinsically self-referential, is recognised as a significant predictor of behavioural outcomes (Bandura, 1997). Despite their theoretical significance, limited research has examined the interplay between these constructs in the context of teaching. The current gap in the literature provides a basis for examining the relationships among creativity-

fostering teacher behaviour, creative teaching attitude, and teacher self-efficacy. Additionally, the present study aims to assess the current status of these variables among elementary school teachers in Nagaland, thereby generating contextually relevant insights for policymakers, teacher educators, and educational researchers.

CHAPTER - III
RESEARCH METHODOLOGY

3.0 Introduction

Research is a systematic process to gain new knowledge and understanding about a phenomenon under study. Research is a series of steps in a process of inquiry that, when carried out, provides information that increases our knowledge of a topic or issue (Creswell, 2015). Research is an organised and systematic application of the scientific method to the analysis of problems; by extension, educational research applies the scientific approach to issues involving the teaching and learning process (Gay et al., 2015). Research methodology involves the systematic procedures by which a researcher starts from the initial identification of the problem to its conclusions. Methodology serves as a framework to conduct the study systematically and validly. A general outline of the study has been provided in this chapter in the following sections:

- Design of the Study
- Population
- Sample and Sampling Techniques
- Tools used for the Study
- Statistical Techniques Use

3.1 Design of the Study

An important aspect of conducting research is the design of the research. A research design is the scheme, structure, or strategy of investigation for generating answers to research questions or problems (Kerlinger, 1986). A design is an overall plan or structure for how research will be conducted, based on the nature of the hypothesis, the variable of interest, and any potential environmental constraints (Gay et al., 2015).

Quantitative research generates data that can be expressed in numbers and is more rigorously tested using quantitative analysis. One of the subtypes of quantitative research is the inferential approach, which aims to establish a database that enables researchers to draw conclusions about population traits or relationships. This approach involves

systematic procedures including data collection, categorisation, analysis, and interpretation. Typically employing survey techniques, it examines a selected sample from a broader population to generate generalisations, thereby constructing informed insights about the whole based on observations or responses from a representative segment (Kothari, 2004).

In the present study, the investigator employed the descriptive survey method. Descriptive research refers to a methodological approach aimed at portraying the attributes of a specific population or phenomenon, without attempting to establish causal relationships. It involves examining relationships between non-manipulated variables and the development of generalisations (Best & Kahn, 2005). The study aimed to investigate the creativity-fostering teacher behaviour and its relationship with teachers' attitude towards creative teaching and their self-efficacy, along with several demographic variables. Hence, given the nature of the research problem, the survey technique, commonly used in descriptive research, was deemed the most appropriate for this study.

3.2 Population of the Study

A population encompasses the entire set of entities sharing defined characteristics. A population refers to the complete set of individuals or units possessing defined attributes, which are relevant to a researcher, to whom the study outcomes are intended to apply (Polit & Hungler, 1999).

In this study, the population consists of all elementary school teachers who teach classes VI to VIII in both government and private schools in Nagaland, affiliated with the Nagaland Board of School Education (NBSE). The population size is 10676 (Number of teachers by classes taught at VI-VIII level) according to the State Department of School Education (DoSE), 2023.

Table 3.1

Total Population of elementary school teachers by classes taught (VI – VIII) in Nagaland

Total Population of Teachers by classes taught (Classes VI-VIII) in Nagaland		
	Govt. Teachers	Private Teachers
	6476	4200
Total	10676	

Source: State Department of School Education (DoSE), 2023

3.3 Sample and Sampling Technique

The sample consists of a group of participants in a study that has been selected from the target population, from which generalisations are made to the target population (Creswell, 2015). Sampling involves the process of selecting individuals from a broader population, ensuring that the chosen participants reflect the defining characteristics of the larger group (Gay et al., 2015). Sampling allows researchers to make inferences about unknown population characteristics based on a well-selected and representative sample (Mohan, 2017). Due to the challenges of studying an entire population, researchers often rely on sampling, which, when conducted randomly, can yield results comparable to those obtained through a complete census (Kerlinger, 1986).

The sample size estimation methods proposed by Yamane (1973) and by Krejcie and Morgan (1970) are well-suited for survey-based research involving finite populations (Uakarn et al., 2021). To ensure an appropriate sample size for a finite population, this study referred to Yamane's (1973) formula, which provides a simplified yet practical approach for calculating the required sample size based on the total population and the desired margin of error.

The Yamane formula:

$$n = N/1+N(e)^2$$

Where n = correlated sample size

N = Population size, and

e = 0.05 margin of error.

Additionally, Krejcie and Morgan's (1970) sample size table was consulted to validate the adequacy of the chosen sample. Their method provides a standardised reference chart grounded in statistical theory, allowing researchers to cross-check sample requirements without complex calculations. While Yamane's formula offers flexibility in adjusting the margin of error, Krejcie and Morgan's table is beneficial for its ease of use and pre-calculated values, especially in educational and social science research contexts (Uakarn et al., 2021).

Based on the Yamane formula of sample size for a finite population of 10676, a representative sample size for the study is about 385. Even according to Krejcie and Morgan's (1970) table, a representative sample size for a population of 15000 is 375. However, a larger sample of 659 was selected for the study, as Creswell (2015) pointed out that in survey research, selecting a large sample is important because it enables the sample to exhibit characteristics similar to those of the target population. In addition, as the sample size increases, the sampling error is also reduced. As representativeness determines the extent to which results can be generalised, a representative sample of 659 elementary school teachers selected randomly from six districts in Nagaland comprised the sample of the study.

Given the population's wide distribution, the present study employed a multistage random sampling technique, a type of probability sampling, to select the sample.

At the first stage, out of the sixteen districts in Nagaland, six districts were selected randomly through a lottery method, i.e., Kohima, Mokokchung, Chumoukedima, Mon, Dimapur, and Kiphire. At the second stage, a list of all the schools from the six districts which have classes VI to VIII was obtained from the Nagaland Board of School Education (NBSE) website and the State Department of School Education (DoSE) in the year 2023,

and 15% of the schools were randomly selected (Uakarn et al., 2021). The stratified random sampling technique was used to select both government and private schools, employing a lottery method (the list of selected schools is provided in *Appendix E).* At the third stage, 659 teachers were selected for the final study through a stratified random sampling technique based on gender, type of school management, professional qualification, and teaching experience. The distribution of the study sample is given in the table below.

Table 3.2

Total Population of elementary school teachers by classes taught (VI – VIII) in Nagaland, and the total Sample for the study

Total Population of Teachers by classes taught (Classes VI-VIII) in Nagaland		Total Sample of Teachers by classes taught (Classes VI-VIII)	
Govt. Teachers	Private Teachers	Govt. Teachers	Private Teachers
6476	4200	338	321
Total 10676		659	

Source: State Department of School Education (DoSE), 2023

Table 3.3

District-wise Number of Selected Schools for the Study from the Total Number of Schools having classes VI to VIII in Nagaland.

Sr. No.	District	Total Schools		Sample Schools		Total Sample Schools
		Govt	Pvt	Govt	Pvt	
1	Chumoukedima	59	63	8	9	17
2	Dimapur	61	82	9	12	21
3	Kiphire	51	13	7	2	9
4	Kohima	68	65	10	9	19

Sr. No.	District	Total Schools		Sample Schools		Total Sample Schools
		Govt	Pvt	Govt	Pvt	
5	Mokokchung	94	29	14	4	18
6	Mon	90	41	13	6	19
	Total	423	293	61	42	**103**

Source: State Department of School Education (DoSE) and Nagaland Board of School Education (NBSE) website, 2023.

Table 3.4

Description of the Sample for the Study

District	Gender		Type of School Management		Professional Qualification		Teaching Experience in Years			Total No. of Teachers
	Male	Female	Govt.	Pvt.	Trained	Un-trained	0-10	11-20	> 20	
Kohima	63	71	61	73	81	53	72	49	13	134
Kiphire	31	31	45	17	45	17	31	19	12	62
Mokok-chung	25	69	63	31	74	20	59	26	9	94
Dimapur	53	84	46	91	103	34	74	50	13	137
Mon	70	51	73	48	63	58	75	32	14	121
Chumoukedima	56	55	50	61	68	43	64	37	10	111
Total	**298**	**361**	**338**	**321**	**434**	**225**	**375**	**213**	**71**	**659**
% of Total	45.22	54.77	51.28	48.71	65.85	34.14	56.90	32.32	10.77	100

*Note. T*otal number of selected teachers (N = 659) and total number of selected teachers based on the variables of gender, management, professional qualification, and teaching experience.

3.4 Tools used for the Study

The following tools were used in the present study:

i) Creativity Fostering Teacher Behaviour Index (CFTIndex) by Soh (2000). Revalidated by the investigator.

ii) Attitude Scale of Creative Teaching (ASCT) developed and standardised by the investigator.

iii) Teacher Self-Efficacy Scale (TSES) developed and standardised by the investigator.

3.5 Description of the Tools

3.5.1 Creativity Fostering Teacher Behaviour Index (CFTIndex)

In the present study, the Creativity Fostering Teacher Behaviour Index (CFTBI) developed by K.C. Soh (2000) was used to measure the creativity-fostering behaviour of elementary school teachers in Nagaland. The CFTIndex was operationalised from Cropley's (1997) nine principles for creativity fostering teacher behaviour in the classroom context. The scale was designed for primary and secondary level school teachers to measure the behavioural characteristics of creativity-fostering teachers. The scale consisted of 45 items under nine factors, viz, independence, integration, motivation, judgment, flexibility, evaluation, question, opportunity, and frustration. For each of the factors, the scale consists of five items and takes the form of a six-point Likert scale, ranging from *'All the time'* (6) to '*Never'* (1). The six-point scale was used to avoid the tendency of the respondents to take the neutral point to maximise the item variance.

a) Distribution of Items

Table 3.5

Dimension-wise Distribution of Items for the Creativity Fostering Teacher Behaviour Index

Sr.No.	Dimensions	Item No.	Total
1	Independence	1, 10, 19, 28, 37	5
2	Integration	2, 11, 20, 29, 38	5

Sr.No.	Dimensions	Item No.	Total
3	Motivation	3, 12, 21, 30, 39	5
4	Judgement	4, 13, 22, 31, 40	5
5	Flexibility	5, 14, 23, 32, 41	5
6	Evaluation	6, 15, 24, 33, 42	5
7	Question	7, 16, 25, 34, 43	5
8	Opportunities	8, 17, 26, 35, 44	5
9	Frustration	9, 18, 27, 36, 45	5
Total	9		45

b) Factor Analysis of the Scale:

The factor analysis with varimax rotation was run for each set of 5 items separately. The items loaded well into their respective domains. The percentage of explained total variance spans a range from 47% (Evaluation), 51% (Motivation), 51% (Dependence), 56% (Flexibility), 59% (Question), 59% (Judgment), 59% (Opportunities), 63% (Integration), to 65% (Frustration).

c) Reliability:

The CFTIndex was responded to by 117 teachers (74% Female and 25% Male) selected through a convenience sample from a wide range of primary, secondary schools and junior colleges in Singapore. The Cronbach alpha coefficient of the scale was .96, with coefficients varying from .69 for the Evaluation Scale to .86 for the Frustration Scale. The scales range from a moderate correlation of .49—observed between Independence and Motivation—to a strong correlation of .82 between Flexibility and Opportunities. Thus, the scale is not only reliable but has moderate intercorrelations, indicating that the factors are reasonably independent of each other while at the same time measuring something in common.

d) Validity:

The CFTIndex, with nine dimensions, showed high construct and convergent validity. However, to further substantiate the instrument's value, additional forms of

validity evidence, such as concurrent validity, were checked. The investigator adapted the Domino's (1970) Creativity Scale for creative persons. Correlations between the CFT Index and the Domino's Creativity Scale were 0.96, indicating a high concurrent validity.

e) Re-establishing the Validity and Reliability of Creativity Fostering Teacher Behaviour Index (CFTIndex)

The Creativity Fostering Teacher Behaviour Index (CFTIndex) was adopted from Soh's (2000) CFTIndex, developed in Singapore; hence, the validity and reliability of the tool have to be re-established before administering it for the study. The Content validity of the Creativity Fostering Teacher Behaviour Index was established through subject experts' opinions from the university and also by qualified school teachers, all of whom agreed that the items in the scale are reasonably representative of the construct the scale intended to measure and are suitable for the study.

To re-establish the reliability of the Creativity Fostering Teacher Behaviour Index, the instrument was distributed to a sample of 200 elementary school teachers, who were not part of the final study. The teachers were randomly selected from both government and private schools from Kohima, Chumoukedima, Tseminyu, and Peren Districts. The Cronbach Alpha (α) value was .92, and the Split-Half reliability was .88, which is very close to the original tool, where the coefficient of reliability was reported to be .96. Accordingly, the reliability coefficients obtained suggest that the scale demonstrates a high level of internal consistency, making it suitable for use in the present study.

3.5.2 Development and Standardisation of Attitude Scale of Creative Teaching (ASCT)

The investigator constructed and standardised the Attitude Scale of Creative Teaching to study the attitude of elementary school teachers in Nagaland towards creative teaching. The teacher's attitude towards creative teaching serves as a key factor in nurturing creativity in educational settings. Creative teaching focuses on the teacher's creative efforts. It entails teachers utilising innovative strategies to engage students and

increase classroom effectiveness (Cremin, 2015). It includes the use of imaginative and innovative approaches that cultivate the learners' creative potential (Lin, 2011).

Findings from studies that investigated the primary elements of creative practice reveal that creative teaching encompasses the teacher's characteristics, the pedagogical methods they adopt, and the beliefs they uphold in their classrooms. Three interconnected dimensions of creative teaching are highlighted by Cremin et al. (2009). The authors believe that learning occurs within a specific cultural and social setting and emphasise three intertwined elements of creative teaching: a). Personal qualities - the teacher's unique talents and interests. b). Pedagogy - the approaches and methods of instruction they use. c). Ethos - the overall climate within the classroom and school environment.

3.5.2.1 Need for Developing the Attitude Scale of Creative Teaching (ASCT)

Previous studies have primarily focused on measuring teachers' perceptions of creativity and the creative abilities of students. It was observed that the few tools developed in Western countries lacked socio-cultural validity and were therefore not suitable for the study. In India, only one tool developed by R.P. Shukla (2012) on the Attitude Scale of Creative Teaching was found. Researchers in India have extensively used this tool. However, the tool is based on E.P. Torrance's (1963) Ideal Pupil checklist, which contains sixty-two traits derived from studies of creative individuals; as such, the scale was not suitable for measuring the creative teaching attitude of teachers as operationalised in the study. Additionally, the scale was unable to measure other aspects of creative teaching mentioned by several creativity researchers (Palaniappan, 2004; Cremin et al., 2009; Bramwell et al., 2011). In light of these limitations, the researcher, with humility and dedication, endeavoured to develop a scale suitable for measuring the attitude of elementary school teachers towards creative teaching in the context of Nagaland state.

3.5.2.2 Steps for the Construction of the Attitude Scale of Creative Teaching

To construct and standardise the Attitude Scale of Creative Teaching, the following steps were taken.

1. Planning

2. Preparation

3. Expert Opinion and Establishing Validity

4. Try out

5. Item Analysis

6. Establishing the Reliability

7) Establishment of Norms

1. Planning

At the planning stage, the literature on creative teaching was thoroughly examined. The investigator also explored tools for measuring creative teaching, such as the Creative Teaching Inventory (CTI) by Palaniappan (2004), the Creative Teaching Reflection Questionnaire by Cremin et al. (2009), and the Attitude Scale of Creative Teaching (ASCT) by R.P. Shukla (2012), to have comprehensive information on the variable to be assessed.

2) Preparation

The following steps were followed in the preparation of the items for the scale:

a) Identification of the dimensions

b) Writing of items

a) Identification of Dimensions

One of the initial and critical steps in developing scale items is to determine the underlying dimensions the scale intends to measure. The investigator has conducted an extensive review of how creativity researchers have defined creative teaching, the factors influencing it, and the dimensions identified. The investigator considered three major dimensions of creative teaching for the study based on Cremin et al.'s (2009) Model of Creative Practice. This model was selected because it has extensively explored the dimensions of creative teaching, making it suitable for the study in light of the operational definition and target population (elementary school teachers). The three dimensions identified in the study for attitude towards creative teaching are Pedagogy, Personal

Qualities, and Classroom Ethos. The operational definitions of these dimensions are as follows:

Pedagogy: Pedagogy refers to the teacher's attitude towards employing different teaching methods and strategies, including the use of information and communication technology (ICT) in the classroom to make learning more engaging and effective.

Personal qualities: Teacher personal qualities encompass the teacher's attitude towards personalising teaching, their values and motivation that shape their creative teaching, and their intelligence, both intrapersonal and interpersonal.

Classroom Ethos: Classroom Ethos refers to the teacher's attitude towards creating a learning environment in the classroom that fosters learners' creativity. It implies creating an environment that fosters positive engagement and is influenced by the creative leadership of the teacher.

b) Writing of Items

The initial pool of items consisted of 76 items, out of which 61 items were positive and 15 items were negative under the three dimensions. After due consultation with the supervisor, the items were revised and reduced to a total of 72 items, comprising 58 positive items and 14 negative items. The Attitude Scale of Creative Teaching was thus prepared based on the Likert Method of Summated Ratings on a five-point continuum ranging from Strongly Agree, Agree, Undecided, Disagree, to Strongly Disagree against the statements.

3) Expert Opinion and Establishing the Validity of the Scale

Test validity refers to the degree of alignment between the intended construct and what the test actually measures (Garett, 2018). The validity of the Attitude Scale of Creative Teaching was established in the following manner:

i) Face Validity

Face Validity is a subjective view of the extent to which a tool covers the concept it purports to assess or measure. It refers to the relevance or transparency of a scale, test,

or inventory as it appears to the participants (Sansanwal, 2020). The face validity of the scale was established based on the views of subject experts (De Vellis, 2021), who confirmed that the tool accurately reflects the construct it intends to measure.

ii) Content validity

Content validity involves a structured assessment of how well the items within a measurement tool reflect the domain they are intended to evaluate. It is guided by how well a measure represents the universe of content of the property to be measured (Kerlinger, 1986). To examine the content validity of the scale, ten experts from several universities across the country, all well-versed in tool construction, were asked to provide their expert judgment on the degree of relevance and clarity of each item in relation to the measured domains. The scale was found to cover the relevant dimensions of attitude towards creative teaching adequately and was suitable for the study.

The feedback and suggestions received from the experts were analysed, and items were revised and rearranged. Items that were ambiguous, weak, repetitive, and had double-barreled statements were removed. Thus, a draft containing a total of 50 items (41 positive and 09 negative items) was finalised for the try-out.

Table 3.6

Distribution of items of the preliminary draft for item analysis of the Attitude Scale of Creative Teaching (ASCT)

Dimension of ASCT	No. of items	Item details
Creative Pedagogy	17	1,2*,3,4,5,6*,7,8,9,10*,11,12*, 13,14,15,16,17*
Teacher Personal Qualities	16	18,19,20,21,22,23,24,25,26,27, 28,29,30,31,32,33*
Classroom Ethos	17	34,35,36,37,38,39,40,41*,42, 43,44,45*,46,47*,48,49,50
Total	50	

The*represents negative items.

4) Try out

To conduct the initial trial, permission was obtained from the appropriate authority within the department, as well as from the heads/principals of the schools involved. Following this, a preliminary draft of the Attitude Scale of Creative Teaching (ASCT) containing a total of 50 items (41 positive and 09 negative items) was administered on a sample of 206 elementary teachers who were not part of the final study. The teachers were randomly selected from both government and private schools in Kohima, Chumoukedima, Tseminyu, and Peren districts in the state of Nagaland.

5) Item Analysis

To select the final items, the technique of item analysis was applied to examine the Item Validity/Discrimination Index of the items (Garrett, 2018). For this, the scores of the respondents were arranged in descending order, and 27% of the teachers with the highest total scores and 27% of the teachers with the lowest total scores on the Attitude Scale of Creative Teaching were identified. These two groups provided the criterion groups based on which the individual items in the scale are to be evaluated (Edward, 1957). At the same time, the middle 46% cases were excluded and were not considered for further analysis. Since the t-value reflects how well an item distinguishes between high and low scoring groups, each item's t-value was calculated using the Statistical Package for the Social Sciences (SPSS, Version 29). Thus, t-values for all 50 items were computed, and the items having t-values equal to or greater than 1.96 (at the .05 level of significance) were retained for the final draft of the Attitude Scale of Creative Teaching. The rest of the items having t-values less than 1.96 were rejected. The computed ‘t’- values for all 50 items of the preliminary draft of the Attitude Scale of Creative Teaching are given in Table 3.7.

Table 3.7

Item number and corresponding t-values selected through item analysis (Independent sample t-test)

Item No.	t-value	Item No.	t-value	Item No.	t-value	Item No.	t-value	Item No.	t-value
1	7.60	11	7.46	21	9.37	31	6.83	41	4.98
2	4.60	***12***	***1.60***	22	6.03	32	9.70	42	7.31
3	4.73	13	5.88	23	9.26	***33***	***0.30***	43	7.77
4	5.12	***14***	***1.89***	24	6.35	34	5.66	44	8.29
5	6.09	15	4.29	25	7.92	35	9.36	***45***	***1.89***
6	3.31	16	3.72	26	7.87	36	10.65	46	5.62
7	5.316	17	4.33	27	7.21	37	6.34	47	7.11
8	6.45	18	6.20	28	7.07	38	2.02	48	4.17
9	5.07	19	7.69	***29***	***1.71***	39	7.92	49	5.34
10	4.29	20	5.87	30	7.11	40	6.52	50	5.73

Note: Items in bold Italics indicate rejected items ('t'-value < 1.96)

a) The final draft of the Attitude Scale of Creative Teaching

Based on item analysis, a final draft of the scale, comprising 45 items (39 positive & 06 negative), was finalised for further standardisation.

Table 3.8

Distribution of items in the final draft of the Attitude Scale of Creative Teaching (ASCT)

Dimension of ASCT	No. of items	Item details
Creative Pedagogy	15	1,2*,3,4,5,6*,7,8,9,10*,11, 12,13,14,15

Dimension of ASCT	No. of items	Item details
Personal Qualities	14	16,17,18,19,20,21,22,23,24, 25,26,27,28,29
Classroom Ethos	16	30,31,32,33,34,35,36,37*,38, 39,40,41,42*,43,44,45
Total	45	

*Represents negative items.

b) Scoring Procedures

The scale has 45 items. An individual score is the sum of the scores of all 45 items. The score ranges from 45 to 225. Higher scores indicate a more favourable attitude towards creative teaching, whereas lower scores indicate a less favourable attitude towards creative teaching. The details of scoring are shown in the following table.

Table 3.9

Scoring procedure for positive and negative items

Item Type	Item Number	Response Type				
		Strongly agree	Agree	Undecided	Disagree	Strongly disagree
Positive	1, 3, 4, 5, 7, 8, 9, 11, 12, 13, 14, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 38, 39, 40, 41, 43, 44, 45	5	4	3	2	1
Negative	2, 6, 10, 15, 37, 42	1	2	3	4	5

6) Establishing the Reliability of the Attitude Scale of Creative Teaching (ASCT)

Reliability is the consistency of the scores. A test score is reliable when the test score is believed to be stable and trustworthy, which depends on the degree to which the

score is free of chance error, known as an index of "true ability" (Garett, 2008). Reliability of a score is usually measured on a scale of 0 to 1, with a greater number indicating higher reliability of the scale, whereas 0 indicates no reliability (SAGE Publications, n.d.).

The reliability of the Attitude Scale of Creative Teaching was determined by employing three methods, i.e., Test-Retest method, Split-Half method and Cronbach Alpha (α). To establish the test-retest reliability, the scale was administered to 60 elementary school teachers randomly selected from both government and private schools in Kohima, Chumoukedima, and Mokokchung districts of Nagaland. The teachers were administered the Attitude Scale of Creative Teaching twice, with a 21-day gap between administrations, to estimate the test-retest reliability index. To calculate the correlation of the scores obtained in the first and second administration of the scale, the Pearson's Product-Moment Correlation method was applied.

To establish split-half reliability and Cronbach's Alpha reliability, the scale was administered to 100 elementary school teachers (Cooper & Schindler, 2011) who were not part of the final study. The teachers were randomly selected from both government and private schools in Kohima and Chumoukedima districts of Nagaland. The split-half reliability of the scale was established through the odd and even method, and with the Spearman-Brown Prophecy formula, the reliability coefficient was estimated. Additionally, Cronbach's alpha coefficient was computed to assess the internal consistency of the items. The respective results are presented in the subsequent table.

Table 3.10

Reliability of the Attitude Scale of Creative Teaching

Reliability Method	N	Reliability co-efficient
Test-Retest Method	60	0.89
Split-Half Method	100	0.93
Cronbach Alpha (α)	100	0.91

Table 3.11

Cronbach Alpha (α) Reliability Statistics Dimension-wise.

Dimension	No. of Items	Alpha (α)
Pedagogy	15	.69
Personal Qualities	14	.89
Classroom Ethos	16	.84
Total	45	.91

Tables 3.10 and 3.11 show that the test-retest reliability coefficient is 0.89, which indicates that the scores of the elementary school teachers were stable over time and hence, the Attitude Scale of Creative Teaching possessed a relatively high degree of test-retest reliability. The reliability coefficient value of split-half is 0.93, and Cronbach's alpha (α) is 0.91. The Cronbach's alpha (α) dimension-wise indicates that Pedagogy with 15 items (α = .69), Personal Qualities with 14 items (α = .89), and Classroom Ethos with 16 items (α =.84) were found reliable, indicating that the items have internal consistency.

7) Establishment of Norms and Interpretation of the Attitude Scale of Creative Teaching

Norms refer to the established standards or reference points that define the typical performance of a particular group on a given scale. Norms provide a standard framework for interpreting test scores by comparing performance to a specific reference group (Anastasi & Urbina, 1997). The Norms for interpreting the scores of the Attitude Scale of Creative Teaching were based on the raw scores obtained after the collection of the final data on a sample of 659 teachers. The raw scores were converted into z-scores, and accordingly, z-score norms were used to categorise the sample on seven levels, i.e. Extremely High, High, Above Moderate, Moderate, Below Moderate, Low, and Extremely Low. The norms for the interpretation of the level of the attitude scale of creative teaching are given below in Table 3.12.

Table 3.12

Norms for the Interpretation of the Level of Attitude Scale of Creative Teaching

Sr. No.	Range of Raw Scores	Range of z-Scores	Grade	Level of Creative Teaching
1	209 & above	+2.01 and above	A	Extremely High
2	199 to 208	+1.26 to +2.00	B	High
3	190 to 198	+0.51 to +1.25	C	Above Moderate
4	177 to 189	-0.50 to +0.50	D	Moderate
5	168 to 176	-0.51 to -1.25	E	Below Moderate
6	158 to 167	-1.26 to -2.00	F	Low
7	157 & below	-2.01 and below	G	Extremely Low

3.5.3 Development and Standardisation of Teacher Self-Efficacy Scale

The investigator constructed and standardised the Teacher Self-Efficacy Scale to study the self-efficacy of elementary school teachers in Nagaland. Teacher self-efficacy, with its theoretical basis in the Social Cognitive Theory of Bandura (1977), has emerged as a valuable predictor in educational research. Teacher self-efficacy involves cognitive processes through which individuals form beliefs about their capability to execute tasks at specific levels of performance (Bandura, 1977). Self-efficacy is concerned with one's understanding of competence rather than one's level of competence. This is a crucial distinction because people often overestimate or underestimate their actual abilities, and these judgments can significantly impact the actions they take or the effort they put forth in those actions (Tschannen-Moran et al., 1998). Teacher self-efficacy beliefs differ in degree, intensity, and the specific domains in which they are applied (Perera et al., 2019). Teachers with a strong sense of efficacy can initiate tasks and persist on them. In contrast, those with a weak sense of efficacy may lead to task avoidance, which can be a significant factor influencing teachers' classroom practices (Poulou et al., 2018).

3.5.3.1 Need for Developing the Teacher Self-Efficacy Scale

After a thorough review of the literature and the available research tools for assessing teachers' self-efficacy, the investigator found that none of these tools were suitable for measuring self-efficacy specifically for elementary teachers in the state of Nagaland. Therefore, in alignment with the study's objectives and recognising the wide range of tasks and responsibilities teachers must fulfil according to the current curriculum and the educational goals set by NEP 2020, the researcher has undertaken the development of a scale aimed at measuring the self-efficacy of elementary school teachers in the context of Nagaland.

3.5.3.2 Steps for the Construction of the Teacher Self-Efficacy Scale

To construct and standardise the Teacher Self-Efficacy Scale, the following steps were taken.

1. Planning
2. Preparation
3. Expert Opinion and Establishing Validity
4. Try out
5. Item Analysis
6. Establishing the Reliability
7) Establishment of Norms

1) Planning

At the planning stage, a comprehensive review of the literature on teacher self-efficacy was conducted to gather comprehensive information on the variable to be assessed. The investigator also examined tools related to teacher self-efficacy and noted that the scales developed for measuring teacher self-efficacy typically have dimensions ranging from two to seven. Gibson and Dembo (1984) identified two dimensions: Personal and General teaching efficacy. Sharma & Kaur (2016) suggested two components: Personal teacher self-efficacy and Professional teacher self-efficacy. Moran & Hoy (2001) suggested three: efficacy in implementing instructional strategies, engaging students effectively, and managing classroom environments. Skaalvik & Skaalvik (2001) identified

six dimensions: instruction, adapting instruction to individual needs, motivating students, maintaining discipline, cooperating with colleagues and parents, and coping with change. Bandura (1994) suggested seven dimensions: efficacy in influencing decision-making, efficacy in influencing school resources, instructional self-efficacy, disciplinary self-efficacy, efficacy in enlisting parental involvement, efficacy in enlisting community involvement, and efficacy in creating a favourable school climate. Paul & Devi (2012) also identified seven dimensions: classroom environment efficacy, school environment efficacy, community environment efficacy, problem-solving efficacy, linkage efficacy, role model efficacy, and coping efficacy.

2) Preparation

The following steps were followed in the preparation of the items for the scale:

a) Identification of the dimensions

b) Writing of items

a) Identification of Dimensions

A critical phase in item development entails the precise identification of the scale's underlying dimensions. The dimensions of the scale were identified through a critical study of the available literature on teacher self-efficacy and in consultation with subject experts. According to Bandura (1997), multidimensional teacher self-efficacy scales enable researchers to select the dimensions most relevant to the domain of functioning being investigated. Bandura (1997) further pointed out that self-efficacy items should correctly reflect the construct and suggested that the following should be taken care of in the item construction. Items should reflect the teacher's *own* subjective belief in their capability. As self-efficacy is also concerned with the teacher's *perceived* capability, items should be phrased as *can do* instead of *will do.* Each item should also contain an obstacle or barrier, as the absence of one would make the activity appear easy, resulting in consistently high perceived self-efficacy.

Considering Bandura's (1997) recommendations for item construction, and recognizing the wide range of tasks and duties that a teacher must perform in light of the

present curriculum and the educational goals as envisaged by the NEP 2020, a multidimensional scale consisting of the following six dimensions has been considered: Efficacy in - Instructions, Classroom Management, Inclusive Practices, Ethics and Values, Cooperating with Colleagues and Parents, Adapt to Changes and Challenges.

1. Instructions: Teacher's belief in their ability to use instructional strategies successfully with students of varying learning abilities to promote effective learning.

2. Classroom Management: Teachers' belief in their ability to manage students' behaviour and keep classrooms free of disruptions to foster an environment conducive to learning.

3. Inclusive Practices: The extent to which teachers are confident in their ability to fulfil the different learning needs of all students, despite their inherent hurdles, and ensure that all students have equitable quality education.

4. Ethics and Values: Teachers' belief in their capability to foster the "social and ethical capacities and dispositions" of the students embedded in the Indian ethos (NEP, 2020, p.38).

5. Adapt to Changes and Challenges: The extent to which teachers are confident they can cope with the changes in the school curriculum and the expectations and demands put upon them.

6. Cooperating with Colleagues and Parents: The extent to which teachers are confident they can work and share responsibilities with colleagues and parents.

b) Writing of Items

Items were drafted based on theoretical models, including Bandura's Social Cognitive Theory, ensuring alignment with established constructs. The initial pool of items consisted of 102 items, out of which 82 items were positive and 20 items were negative under the six dimensions. After due consultation with the supervisor, the items were revised and reduced to 75 items in total, with 63 positive items and 12 negative items, which were subjected to the judgment of the experts. The Teacher Self-Efficacy Scale was thus prepared based on the Likert Method of Summated Ratings on a five-point continuum ranging from Exactly true, Moderately true, Neutral, Barely true to Not at all true against the items.

3) Expert Opinion and Establishing the Validity of the Teacher Self-efficacy Scale

Test validity refers to the extent to which a test accurately measures the construct it is intended to evaluate (Garett, 2008). The validity of the Teacher Self-efficacy Scale was established in the following manner:

i) Face Validity

Face Validity is a subjective view of the extent to which a tool covers the concept it purports to assess or measure. It refers to the relevance or transparency of a scale, test, or inventory as it appears to the participants (Sansanwal, 2020). The face validity of the scale was established based on the opinion of subject experts, who believed that the tool accurately reflects the concept it intends to measure.

ii) Content validity

Content validity is a systematic examination of the representativeness of the content of a measuring instrument. It is guided by how well a measure represents the universe of content of the property to be measured (Kerlinger, 2019). To assess the content validity of the scale, ten experts from several universities, all well-versed in tool construction, were asked to provide their expert judgment on the relevance and clarity of each item in relation to the measured domains. The scale was found to cover the relevant dimensions of teacher self-efficacy adequately.

The feedback and suggestions received from the experts were analysed, and items were revised and rearranged. Items that were ambiguous, weak, repetitive, and had double-barreled statements were removed. The items were revised and modified in the light of their suggestions, and a total of 52 items were finalised for the try-out of the Teacher Self-Efficacy Scale. Out of these 52 items, 43 items were positive, whereas the remaining 9 items were negative.

Table 3.13

Distribution of items of the preliminary draft for item analysis of the Teacher Self-Efficacy Scale

Dimension of Teacher Self-efficacy Scale	No. of items	Item details
Instructions	11	1, 2, 3, 4, 5, 6, 7, 8*, 9, 10, 11*
Classroom Management	8	12, 13, 14, 15, 16, 17,18, 19*
Inclusive Practices	8	20, 21, 22, 23, 24, 25, 26, 27*
Ethics and Values	7	28, 29, 30, 31, 32, 33, 34*
Adapt to Changes and Challenges	9	35, 36, 37, 38, 39, 40, 41, 42, 43*
Cooperating with Colleagues and Parents	9	44, 45, 46, 47*, 48, 49*, 50, 51, 52*
Total	52	

The*represents negative items.

4) Try out

To conduct the initial trial, permission was obtained from the appropriate authority within the department, along with consent from the respective school heads and principals participating in the study. Following this, a preliminary draft of the Teacher Self-Efficacy Scale containing a total of 52 items was administered on a sample of 206 elementary teachers who were not part of the final study. The teachers were randomly selected from both government and private schools in Kohima, Chumoukedima, Tseminyu, and Peren districts in the state of Nagaland.

5) Item Analysis

To select the final items, the technique of item analysis was utilised to determine the 'Item Validity/Discrimination Index' of each item (Garrett, 2008). For this, the scores of the respondents were arranged in descending order, and 27% of the teachers with the highest total scores and 27% of the teachers with the lowest total scores on the Teacher

Self-efficacy Scale were identified. These two groups provided the criterion groups based on which the individual items in the scale are to be evaluated (Edward, 1957). At the same time, the middle 46% cases were excluded and were not considered for further analysis. Since the t-value reflects how well an item distinguishes between high and low scoring groups, each item's t-value was calculated using the Statistical Package for the Social Sciences (SPSS, Version 29). Thus, t-values for all 52 items were computed, and the items having t-values equal to or greater than 1.96 (at the .05 level of significance) were retained for the final draft of the Teacher Self-Efficacy Scale. The rest of the items having t-values less than 1.96 were rejected. The computed 't'-values' for all 52 items of the preliminary draft of the Teacher Self-efficacy Scale are given in Table 3.14.

Table 3.14

Item number and corresponding t-values selected through item analysis (Independent sample t-test)

Item No.	t-value	Item No.	t-value	Item No.	t-value	Item No.	t-value	Item No.	t-value
1	6.706	12	8.939	23	6.864	***34***	***1.506***	45	6.622
2	8.400	13	10.503	24	8.048	35	6.893	46	7.686
3	9.687	14	7.888	25	9.869	36	6.143	***47***	***1.879***
4	7.247	15	11.178	26	11.270	37	9.828	48	6.378
5	7.927	16	10.467	***27***	***0.675***	38	9.825	***49***	***0.178***
6	6.701	17	9.916	28	3.511	39	6.665	50	8.794
7	6.969	18	7.474	29	6.285	40	6.938	51	6.542
8	***0.88***	19	1.962	30	7.477	41	6.465	***52***	***0.720***
9	6.844	20	5.662	31	8.213	42	7.716		
10	5.782	21	8.523	32	10.679	***43***	***0.174***		
11	***0.802***	22	10.033	33	7.228	44	7.264		

Note: Items in bold Italics indicate rejected items ('t'-value < 1.96)

a) The final draft of the Teacher Self-Efficacy Scale

Based on item analysis, a final draft of the scale, comprising 44 items (43 positive & 01 negative), was finalised for further standardisation.

Table 3.15

Distribution of items in the final draft of the Teacher Self-Efficacy Scale

Dimensions of Teacher Self-efficacy Scale	No. of items	Item details
Instructions	9	1, 2, 3, 4, 5, 6, 7, 8, 9
Classroom Management	8	10, 11, 12, 13, 14, 15, 16, 17*
Inclusive Practices	7	18, 19, 20, 21, 22, 23, 24
Ethics and Values	6	25, 26, 27, 28, 29, 30
Adapt to Changes and Challenges	8	31, 32, 33, 34, 35, 36, 37, 38
Cooperating with Colleagues and Parents	6	39, 40, 41, 42, 43, 44
Total	44	

*Represents negative items

b) Scoring Procedures

The scale has 44 items. An individual score is the sum of the scores of all 44 items. The score ranges from 44 to 220. Higher scores indicate a higher level of self-efficacy among the teacher. The details of scoring are shown in the following table.

Table 3.16

Scoring procedure for positive and negative items

Item Type	Item Number	Response Type				
		Exactly true	Moderately true	Neutral	Barely true	Not at all true
Positive	1, 2, 3, 4, 5, 6, 7, 8, 9,10 11, 12, 13,14, 15, 16, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36,37, 38, 39, 40, 41, 42,43,44	5	4	3	2	1
Negative	17	1	2	3	4	5

6) Establishing the Reliability of the Teacher Self-efficacy Scale

Reliability is the consistency of the scores. A test score is reliable when the test score is believed to be stable and trustworthy, which depends on the degree to which the score is free of chance error, known as an index of "true ability" (Garett, 2018). Reliability of a score is usually measured on a scale of 0 to 1, with a greater number indicating higher reliability of the scale, whereas 0 indicates no reliability (SAGE Publications, n.d.).

The reliability of the Teacher Self-efficacy Scale was determined by employing three methods, i.e. Test-Retest method, Cronbach Alpha (α) and Split-Half method. To establish the test-retest reliability, the scale was administered to 60 elementary school teachers randomly selected from both government and private schools in Kohima, Chumoukedima, and Mokokchung districts of Nagaland. The teachers were administered the Teacher Self-efficacy Scale twice, with a 21-day gap between administrations, to estimate the test-retest reliability index. To calculate the correlation of the scores obtained in the first and second administration of the scale, the Karl Pearson's Product-Moment Correlation method was applied.

To establish split-half reliability and Cronbach's Alpha reliability, the scale was administered to 100 elementary school teachers (Cooper & Schindler, 2011) who were not

part of the final study. The teachers were randomly selected from both government and private schools in Kohima and Chumoukedima districts of Nagaland. The split-half reliability of the scale was established through the odd and even method, and with the Spearman-Brown Prophecy formula, the reliability coefficient was estimated. Additionally, Cronbach's Alpha was computed to assess the internal consistency of the items. The findings are presented in the table below.

Table 3.17

Reliability of the Teacher Self-efficacy Scale

Reliability Method	N	Reliability co-efficient
Test-Retest Method	60	.851
Split-Half Method	100	.940
Cronbach Alpha (α)	100	.942

Table 3.18

Cronbach Alpha (α)Reliability Statistics Dimension-wise.

Dimension	No. of Items	Alpha (α)
Instructions	9	.76
Classroom Management	8	.77
Inclusive Practices	7	.83
Ethics and Values	6	.76
Adapt to Changes and Challenges	8	.88
Cooperating with Colleagues and Parents	6	.68
Total	44	.94

Tables 3.17 and 3.18 show that the test-retest reliability coefficient is 0.85, indicating that the scores of the elementary school teachers were stable over time, and hence, the Teacher Self-efficacy Scale possesses a relatively high degree of test-retest reliability. The reliability coefficient value of split-half is 0.940, and Cronbach's alpha (α) is 0.942. The cronbach alpha (α) dimension wise indicate that Instructional Efficacy with

nine items (α = .76), Classroom Management with eight items (α = .77), Inclusive Practices with seven items (α =.83), Ethics and Values with six items (α =.76), Adapt to Changes and Challenges with eight items(α =.88), and Cooperating with Colleagues and Parents with six items (α =.68), were found reliable, indicating that the items have internal consistency.

7) Establishment of Norms and Interpretation of the Teacher Self-Efficacy Scale

Norms refer to the established standards or reference points that define the typical performance of a particular group on a given scale. Norms provide a standard framework for interpreting test scores by comparing performance to a specific reference group (Anastasi & Urbina, 1997). The Norms were established for interpreting the scores of the Teacher Self-Efficacy Scale based on the raw scores obtained from the responses of 659 teachers. The raw scores were converted into z-scores, and accordingly, z-score norms were used to categorise the sample on seven levels. The norms for the interpretation of the level of teacher self-efficacy are given below in Table 3.19.

Table 3.19

Norms for Interpretation of the Level of Teacher Self-efficacy

Sr. No.	Range of Raw Scores	Range of z-Scores	Grade	Level of Teacher Self-efficacy
1	218 & above	+2.01 and above	A	Extremely High
2	205 - 217	+1.26 to +2.00	B	High
3	191 - 204	+0.51 to +1.25	C	Above Moderate
4	172 -190	-0.50 to +0.50	D	Moderate
5	158 -171	-0.51 to -1.25	E	Below Moderate
6	144 - 157	-1.26 to -2.00	F	Low
7	143 & below	-2.01 and below	G	Extremely Low

3.6 Procedure for Data Collection

Data was collected from a sample of 659 elementary school teachers across six districts in Nagaland state. The data collection process began with obtaining consent from

the relevant university department. Following this, the researcher personally visited the schools to secure permission from the school heads. During these visits, the researcher explained the purpose of the study and requested permission to collect data.

The researcher administered the data collection tools according to the instructions outlined in their respective manuals. Before administering the tools, participants were informed about the study's purpose and assured that their information would be kept confidential and used solely for research purposes. After obtaining the participants' consent, they were encouraged to respond to each item on the tool honestly. No time limit was imposed on the teachers for responding to the scale items, and data collection was limited to teachers who willingly chose to participate in the study. After collecting the data, the researcher verified whether participants had answered all items on the scale. Subsequently, the responses were scored according to the criteria specified for each scale.

3.7 Statistical Techniques Employed

The following statistical techniques were employed for data analysis.

i) Descriptive Statistics

Descriptive statistics were used to analyse the nature of the scores for the study variables, which included creativity-fostering teacher behaviour, creative teaching attitude, teacher self-efficacy, and demographic variables such as gender, type of school management, teaching experience, and professional qualifications. Descriptive statistics calculated included the mean, median, mode, standard deviation, skewness, and kurtosis for the scores obtained on the respective variables.

ii) Inferential Statistics

The independent sample t-test was employed to determine the differences among categorical variables, such as male and female, government and private, trained and untrained teachers, in terms of creativity-fostering teacher behaviour, creative teaching attitude, and teacher self-efficacy.

One-way ANOVA (Analysis of Variance) was used to determine the difference in years of teaching experience.

Factorial ANOVA was used to study the interactional effect of gender, type of school management, professional qualification, and teaching experience on creativity-fostering teacher behaviour, creative teaching attitude, and teacher self-efficacy.

Multiple Regression was used to predict the criterion or dependent variable based on two predictors.

a) The effect size for the independent t-test

Effect size is a numerical indicator that reflects how strongly two variables are related, either across a population or within a study sample. Among the commonly used metrics, Cohen's d is frequently applied to express the standardised difference between two group means using standard deviation units. For the present study, the effect size was calculated along with the significance. It is used to determine the impact of gender, school management type, and professional qualification on measures of creativity-fostering teacher behaviour, creative teaching attitude, and teacher self-efficacy.

Effect size is determined by using the formula:

Cohen's d = $Mean_2$ - $Mean_1$ / SD pooled

Here, SD pooled = $\sqrt{(SD1^2) + (SD2^2)}$ /2

Evaluation of effect size based on the guidelines proposed by Cohen (1988).

Small effect: d = 0.01 to 0.2

Medium effect: d = 0.2 to 0.5

Large effect: d = 0.5 to 0.8

Very large effect: d = 0.8 to above

b) The effect size for ANOVA

Effect size in ANOVA is essential for quantifying the magnitude of differences between groups. A commonly used measure of effect size in this context is Eta Squared. Eta Squared quantifies how much of the variability in the dependent variable is explained by the independent variable, offering a measure of the independent variable's effect on the observed outcome (Alfonso, 2019).

Eta Squared is determined by using the formula:

Eta Squared (η^2) = (SS between / SS total)

Where, SS between = Sum of Squares between groups

SS total = Total Sum of Squares

Interpretation of Eta Squared Values (Fritz et al., 2012):

Small effect = 0.01 - 0.03

Medium effect = 0.04 - 0.07

Large effect = 0.08 or larger

(iii) Bivariate Analysis

Bivariate analysis is a statistical method employed to explore the relationship between two variables. In this context, the Pearson Product-Moment Correlation was utilised to assess both the strength and direction of the relationship between the dependent variable—creativity-fostering teacher behaviour—and the independent variables, which include creative teaching attitude and teacher self-efficacy.

Interpretation of Pearson Correlation Coefficient

The Pearson correlation coefficient ranges from −1.00 to +1.00, indicating the strength and direction of a linear relationship between two variables. Values between 0.00 and +1.00 signify a positive association, where an increase in one variable is generally associated with an increase in the other. In contrast, negative values imply an inverse relationship, meaning that a rise in one variable typically coincides with a decline in the other (Schober et al. 2018)

CHAPTER-IV
DATA ANALYSIS AND INTERPRETATION

4.0 Introduction

A thorough analysis of the collected data is presented in this chapter. Systematic analysis of data is a fundamental aspect of empirical research, allowing researchers to identify meaningful patterns and relationships (AULRE, 2024). This process involves a systematic approach to examining and interpreting datasets, aimed at uncovering significant patterns, trends, and interconnections. The current study investigates the relationship between Creativity-Fostering Teacher Behaviour, Creative Teaching Attitude, and Teacher Self-Efficacy. To analyse the variables, both descriptive and inferential statistical methods were employed.

The chapter has been divided into six sections and presents in detail the findings of the study in the light of the objectives and hypotheses of the study as given below:

Section I: Distribution of Samples and Test of Normality of Creativity Fostering Teacher Behaviour, Creative Teaching Attitude, Teacher Self-Efficacy and its Sub-samples/Demographic variables.

Section II: Descriptive Analysis of Creativity Fostering Teacher Behaviour, Creative Teaching Attitude, and Teacher Self-Efficacy.

Section III: Differential Analysis of the test of significance of Creativity Fostering Teacher Behaviour, Creative Teaching Attitude, and Teacher Self-Efficacy between groups such as Gender, Type of School Management, Professional Qualification, and Teaching Experience.

Section IV: Univariate Analysis (ANOVA) of the demographic variables on Creativity Fostering Teacher Behaviour, Creative Teaching Attitude, and Teacher Self-Efficacy.

Section V: Bivariate Analysis (Correlation) of the variables Creativity Fostering Teacher Behaviour, Creative Teaching Attitude, and Teacher Self-Efficacy.

Section VI: Regression Analysis (Prediction) to find the contribution of Creative Teaching Attitude and Teacher Self-Efficacy in predicting Creativity Fostering Teacher Behaviour

4.1 Distribution of the sample of the study based on demographic variables such as Gender, Type of School Management, Professional Qualification and Teaching Experience

The sample comprised 659 Elementary School Teachers from six districts of Nagaland. The distribution of the sample according to demographic variables is shown in Table 4.1 below.

Table 4.1

Distribution of Sample according to Demographic Variables

Sr.no	Demographic Variables	Categories	N	%
1.	Gender	Male	298	45.2
		Female	361	54.8
2.	School Management	Government	338	51.28
		Private	321	48.72
3.	Professional Qualification	Trained	434	65.9
		Untrained	225	34.1
4.	Teaching Experience in Years	0 to 10 Years	375	56.9
		11 to 20 Years	213	32.3
		>20 Years	71	10.8
	Total		659	100

Figure 4.1.

Graph showing the distribution of the total sample with respect to Gender

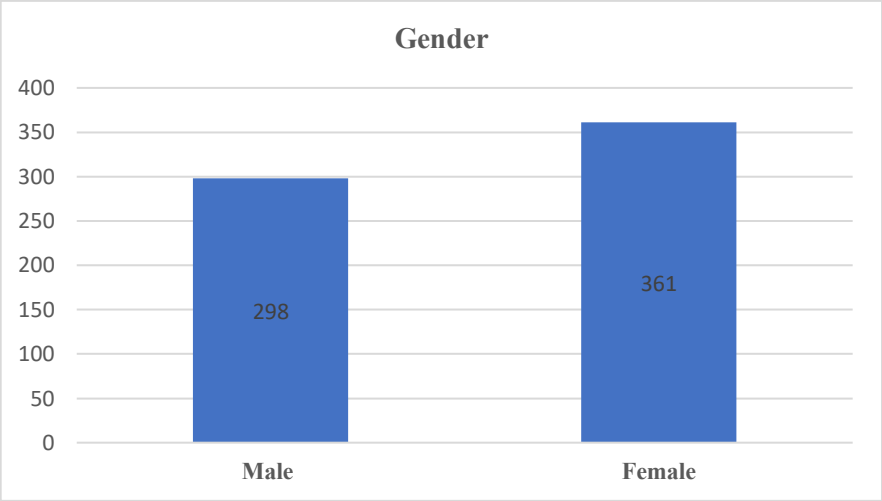


Figure 4.1 shows that male teachers constitute 45.2 % (298) of the study sample, while female teachers constitute 54.8% (361) of the sample.

Figure 4.2

Graph showing the distribution of the total sample with respect to the Type of School Management

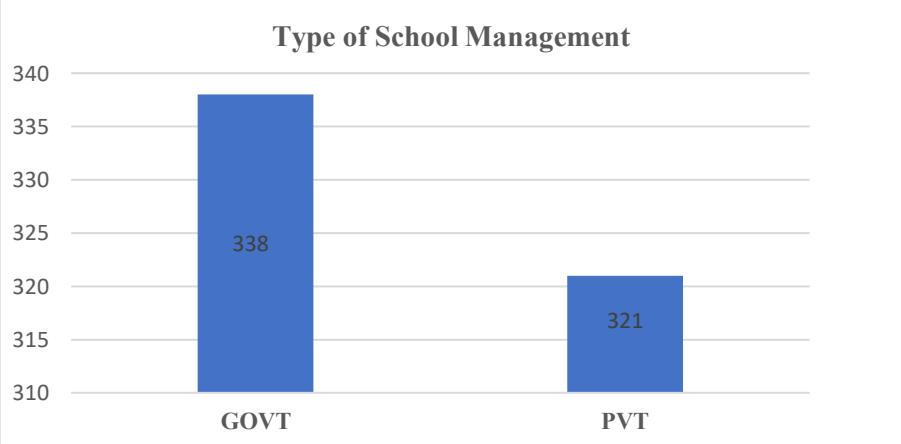


Figure 4.2 shows that Government teachers constitute 51.28% (338) of the study sample, while Private teachers constitute 48.72% (321) of the sample.

Figure 4.3

Graph showing the distribution of the total sample with respect to Professional Qualification

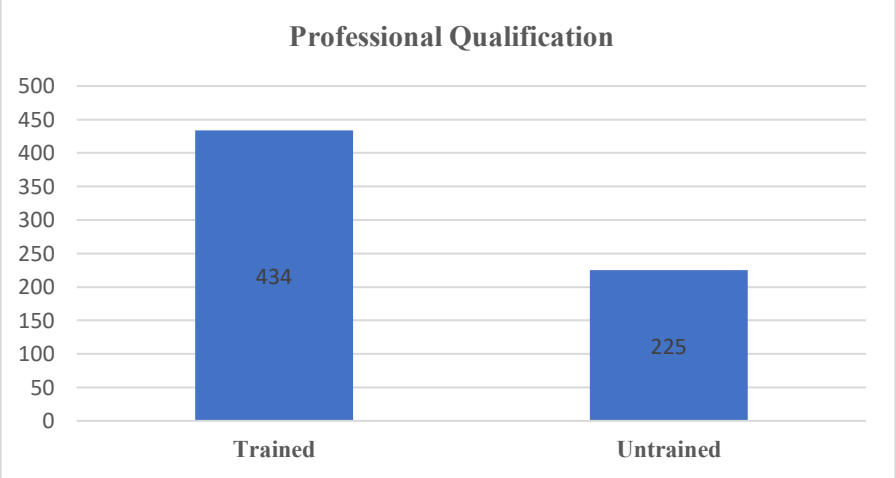


Figure 4.3 shows that Trained teachers constitute 65.9% (434) of the study sample, while Untrained teachers constitute 34.1% (225) of the sample.

Figure 4.4

Graph showing the distribution of the total sample with respect to Teaching Experience

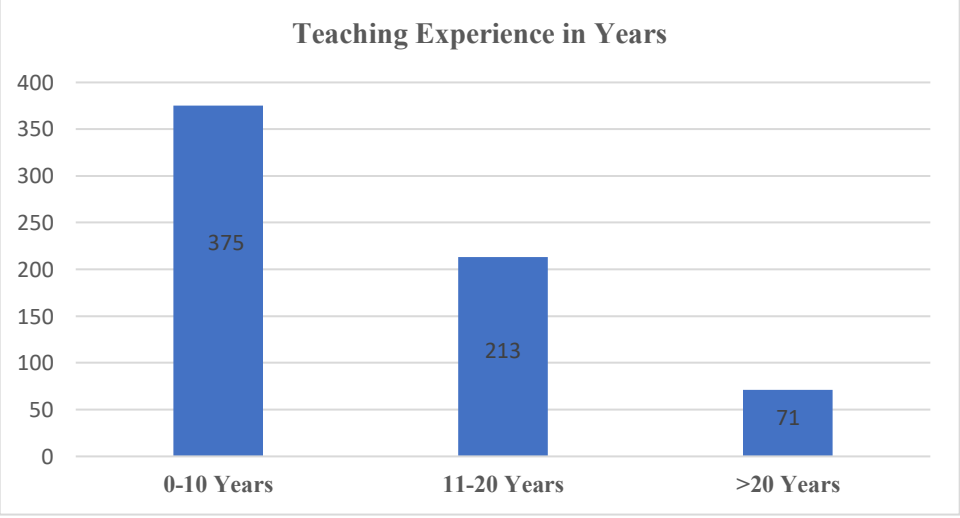


Figure 4.4 shows that teachers with 0-10 years of teaching experience constitute 56.9% (375) of the sample, 11-20 years of teaching experience constitute 32.3% (213),

and teachers with more than 20 years of teaching experience constitute 10.8% (71) of the study sample.

4.2 Test of Normality on the Variables of Creativity Fostering Teacher Behaviour, Creative Teaching Attitude, and Teacher Self-Efficacy Scores

To determine the nature of distribution of the variable (Creativity Fostering Teacher Behaviour, Creative Teaching Attitude, and Teacher Self-Efficacy) along with the demographic variables (Gender, Type of School Management, Professional Qualification and Teaching Experience), descriptive statistics such as mean, median, mode (Central tendencies), Standard Deviation, Skewness and Kurtosis were examined.

4.2.1 Distribution of Creativity Fostering Teacher Behaviour Scores

Figure 4.5

Graphical representation of Normality of sample data for Creativity Fostering Teacher Behaviour Scores

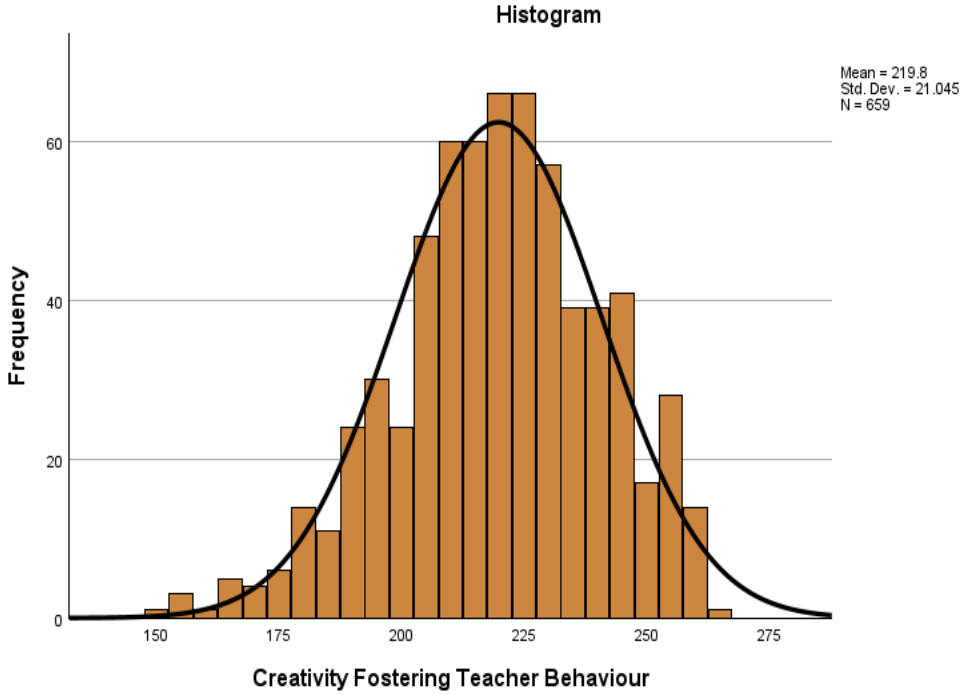


Figure 4.6

Graphical representation (Q-Q plot) of Creativity Fostering Teacher Behaviour Scores

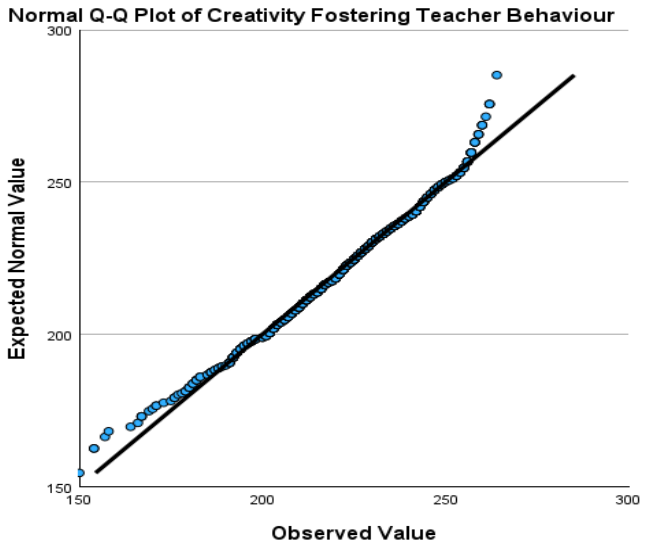


Table 4.2

Distribution of Creativity Fostering Teacher Behaviour Scores

Variable	N	Mean	Median	Mode	SD	Skewness	Kurtosis
Creativity Fostering Teacher Behaviour	659	219.80	221.00	216.00	21.04	-0.33	0.03

Figures 4.5 and 4.6, along with Table 4.2, illustrate the distribution of Creativity Fostering Teacher Behaviour Scores. The mean score is 219.80, the median is 221.00, and the mode is 216.00, indicating that the distribution is approximately normal. The standard deviation is 21.04, suggesting a moderate level of variability in the data. The skewness value is -0.33, which indicates a slight leftward skew, yet the distribution remains relatively close to a normal distribution. Additionally, the kurtosis value is 0.03, showing that the distribution is approximately mesokurtic, similar to a normal distribution. Overall,

the data is reasonably normally distributed, with only minor deviations. This is not a significant concern for analysis, as it falls within the acceptable limits for skewness and kurtosis, which are +1 to -1 (Mishra et al., 2019). Moreover, the distribution can still be considered normal, with a skewness value between ±2 (George & Mallery, 2010) and a kurtosis range of -10 to +10 (Collier, 2020). The Q-Q (Quantile-Quantile) plot shows points clustered closely along the straight line, further supporting the conclusion that the data is normally distributed. Therefore, we can conclude that the Creativity Fostering Teacher Behaviour Scores are normally distributed, making it suitable for conducting parametric statistical analyses.

4.2.2 Descriptive Statistics of Creativity Fostering Teacher Behaviour Scores for the Sub-samples

To ascertain the nature of the distribution of Creativity Fostering Teacher Behaviour Scores for the sub-samples/demographic variables, descriptive statistics like mean, median, mode (central tendencies), standard deviation, skewness and kurtosis were considered.

Table 4.3

Descriptive Statistics of the distribution of Creativity Fostering Teacher Behaviour scores for the Sub-samples.

Demographic variables	Sub-samples	N	Mean	Median	Mode	SD	Skewness	Kurtosis
Gender	Male	298	218.99	221.00	220	22.33	-0.32	0.07
	Female	361	220.47	221.00	216	19.92	-0.32	-0.10
School Management	Govt	338	217.66	217.00	216	21.04	0.00	-0.47
	Pvt	321	221.89	223.50	230	20.86	-0.68	0.83

Demographic variables	Sub-samples	N	Mean	Median	Mode	SD	Skewness	Kurtosis
Professional Qualification	Trained	434	219.81	220.00	216	20.17	-0.04	-0.34
	Un-trained	225	219.78	223.00	223	22.67	-0.73	-0.42
Teaching Experience in Years	0-10 yrs	375	221.01	222.00	222	20.37	-0.38	.033
	11-20 yrs	213	219.24	219.00	216	20.26	-0.09	-0.03
	>20 yrs	71	209.85	212.00	192	23.93	-0.33	-0.31

Table 4.3 displays the distribution of Creativity Fostering Teacher Behaviour scores among elementary school teachers, categorised by gender, type of school management, professional qualifications, and teaching experience. Statistical measures, including the mean, median, mode, standard deviation, skewness, and kurtosis, were calculated for all sub-samples of Creativity Fostering Teacher Behaviour. The skewness and kurtosis values for all sub-samples fall between +1 and -1, which is within the acceptable range (Mishra et al., 2019). These results indicate that the data is approximately normal and suitable for parametric statistics.

4.2.3 Distribution of Creative Teaching Attitude Scores

Figure 4.7

Graphical representation of Normality of sample data for Creative Teaching Attitude Scores

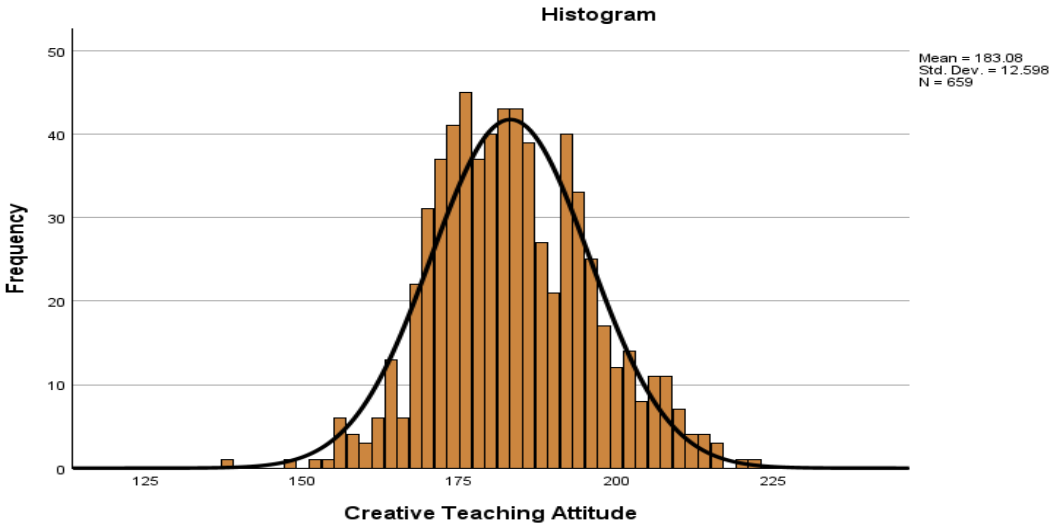


Figure 4.8

Graphical representation (Q-Q plot) of Creative Teaching Attitude Scores

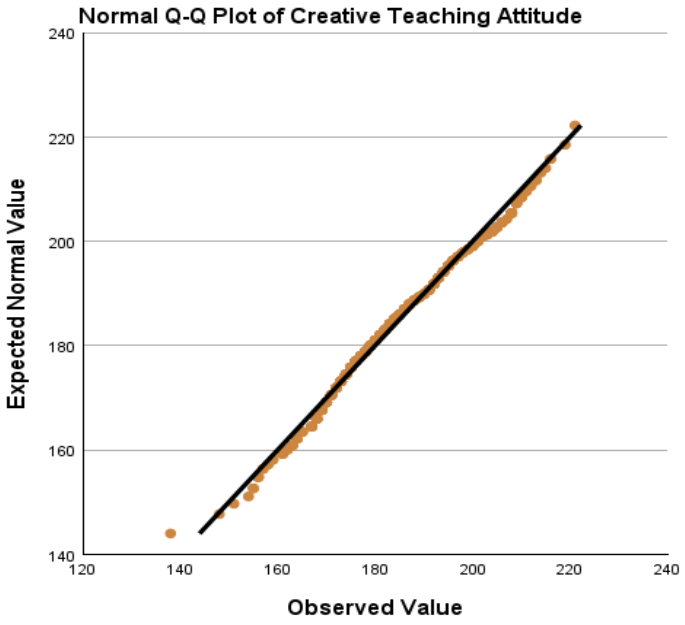


Table 4.4

Distribution of Creative Teaching Attitude Scores

Variable	N	Mean	Median	Mode	SD	Skewness	Kurtosis
Creative Teaching Attitude	659	183.08	182.00	183.00	12.59	0.22	0.03

Figures 4.7 and 4.8, along with Table 4.4, illustrate the distribution of Creative Teaching Attitude Scores. The mean is 183.08, the median is 182.00, and the mode is 183.00, indicating a symmetrical distribution. The standard deviation is 12.59, suggesting a moderate amount of variability within the data. The skewness value of 0.22 indicates that the distribution is relatively close to normal, while the kurtosis value of 0.03 indicates that the distribution is approximately mesokurtic, resembling a normal distribution. Overall, the data is reasonably normally distributed, as it falls within the acceptable values of skewness and kurtosis, which are typically considered to be between -1 and +1. The distribution can be considered normal even with a skewness value between +/-2 (George & Mallery, 2010) and a Kurtosis range of -10 to +10 (Collier, 2020). In the Q-Q (Quantile-Quantile) plot, the alignment of data points along the reference line further supports the assertion of a normal distribution pattern. Thus, we can conclude that the distribution of Creative Teaching Attitude scores is approximately normal, making it appropriate to use parametric statistics for data analysis.

4.2.4 Descriptive Statistics of Creative Teaching Attitude Scores for the Sub-samples

To determine the nature of the distribution of Creative Teaching Attitude Scores for the sub-samples/demographic variables, descriptive statistics such as mean, median, mode (central tendencies), standard deviation, skewness, and kurtosis were examined.

Table 4.5

Descriptive Statistics of the Distribution of Creative Teaching Attitude Scores of Elementary School Teachers for the Sub-samples.

Demographic variables	Sub-samples	N	Mean	Median	Mode	SD	Skewness	Kurtosis
Gender	Male	298	183.14	183.00	183	13.13	0.00	0.05
	Female	361	183.03	181.00	175	12.15	0.46	0.01
School Management	Government	338	181.86	181.00	181	11.90	0.34	0.60
	Private	321	184.27	183.00	171	13.14	0.10	-0.30
Professional Qualification	Trained	434	183.33	182.00	183	11.86	0.40	0.10
	Untrained	225	182.59	182.00	174	13.91	0.04	0.18
Teaching Experience in Years	0-10 years	375	184.63	183.00	183	13.27	0.08	0.06
	11-20 years	213	182.14	181.00	175	11.35	0.40	0.30
	>20 years	71	177.73	178.00	171	10.75	0.11	-0.24

Table 4.5 presents the distribution of Creative Teaching Attitude Scores among elementary school teachers based on gender, type of school management, professional qualification, and teaching experience. Descriptive statistics such as mean, median, mode, standard deviation, skewness, and kurtosis were calculated for each sub-sample of Creative Teaching Attitude. The skewness and kurtosis values for all sub-samples ranged between +1 and -1, which is considered acceptable (Mishra et al., 2019). The values obtained for mean, median, mode, standard deviation, skewness, and kurtosis indicate that the data are approximately normally distributed and suitable for parametric statistics.

4.2.5 Distribution of Teacher Self-Efficacy Scores

Figure 4.9

Graphical representation of Normality of sample data for Teacher Self-Efficacy

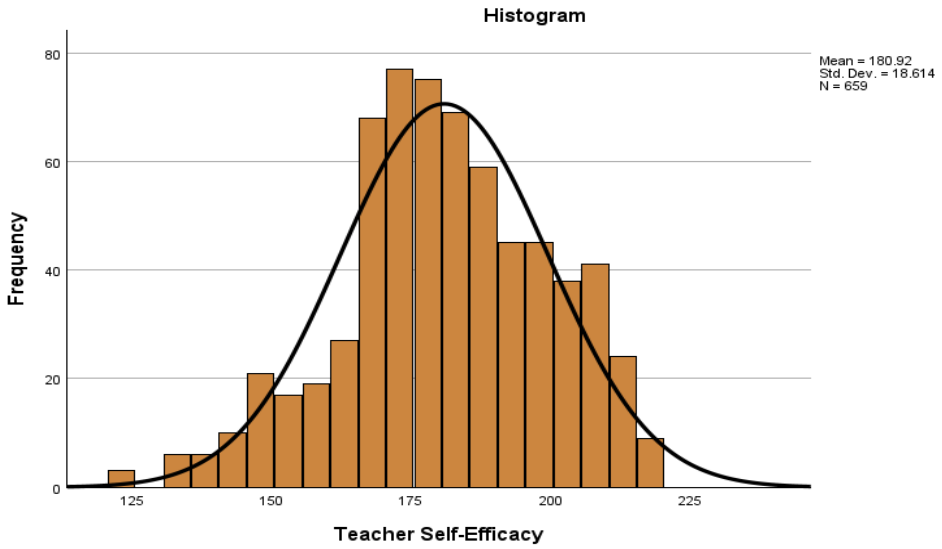


Figure 4.10

Graphical representation (Q-Q plot) of sample data for Teacher Self-Efficacy

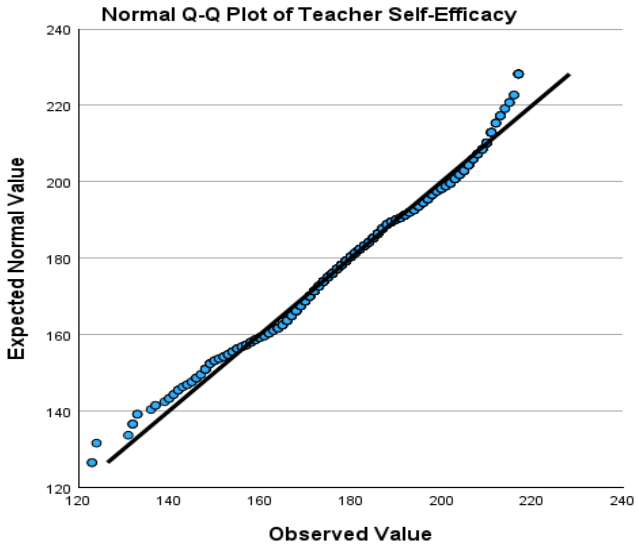


Table 4.6

Distribution of Teacher Self-Efficacy Scores

Variable	N	Mean	Median	Mode	SD	Skewness	Kurtosis
Teacher Self-Efficacy	659	180.92	181.00	174.00	18.61	-0.29	-0.09

Figures 4.9 and 4.10, along with Table 4.6, present the distribution of Teacher Self-Efficacy Scores. The mean score is 180.92, the median is 181.00, and the mode is 174.00. These values indicate that the distribution is approximately symmetrical, with a slight left skew. The standard deviation is 18.61, suggesting a moderate amount of variability within the data. The skewness value is -0.29, which indicates that the distribution is relatively close to normal, with a slight leftward skew. The kurtosis value of -0.09 reflects mild negative kurtosis, suggesting that the distribution is platykurtic, characterised by a slightly flatter peak than a normal distribution. Overall, the data is normally distributed, with minor deviations, and is not a significant concern for analyses, as it falls within the acceptable values of skewness and kurtosis, ranging from -1 to +1. The distribution can be considered normal even with a skewness value between +/-2 (George & Mallery, 2010) and a Kurtosis range of -10 to +10 (Collier, 2020). Furthermore, the Q-Q (Quantile-Quantile) plot shows that the data points align closely along the reference line, reinforcing the normal distribution pattern. Therefore, we can conclude that the Teacher Self-Efficacy Scores are normally distributed, justifying the use of parametric statistical methods for data analysis.

4.2.6 Descriptive Statistics of Teacher Self-Efficacy Scores for the Sub-samples

To determine the nature of the distribution of Teacher Self-Efficacy Scores for the sub-samples/demographic variables, descriptive statistics such as mean, median, mode (central tendencies), standard deviation, skewness, and kurtosis were examined.

Table 4.7

Descriptive Statistics of the Distribution of Teacher Self-Efficacy Scores for the Sub-samples.

Demographic variables	Subsamples	N	Mean	Median	Mode	SD	Skewness	Kurtosis
Gender	Male	298	181.46	182.00	174.00	19.97	-0.47	0.00
	Female	361	180.48	179.00	172.00	17.42	-0.08	-0.27
School Management	Government	338	178.30	178.00	174.00	18.08	-0.26	0.17
	Private	321	183.48	184.00	187.00	18.79	-0.36	-0.23
Professional Qualification	Trained	434	180.49	180.00	174.00	18.01	-0.24	0.06
	Untrained	225	181.76	183.00	166.00	19.73	-0.39	-0.30
Teaching Experience in Years	0-10 years	375	181.28	181.00	172.00	18.80	-0.23	-0.17
	11-20 years	213	181.30	180.00	174.00	17.75	-0.41	0.15
	> 20 years	71	177.93	179.00	185.00	20.09	-0.27	-0.25

Table 4.7 presents the distribution of Teacher Self-Efficacy Scores among elementary school teachers, categorised by gender, type of school management, professional qualifications, and teaching experience, for each sub-sample of Teacher Self-Efficacy. Statistical measures, such as the mean, median, mode, standard deviation, skewness, and kurtosis, were calculated. The skewness and kurtosis values for all sub-samples ranged between +1 and -1, which falls within the acceptable range (Mishra et al., 2019). These results, including the mean, median, mode, standard deviation, skewness, and kurtosis, suggest that the data are approximately normally distributed and suitable for parametric statistical analysis.

4.3 Levels of Creativity Fostering Teacher Behaviour among Elementary School Teachers

The first Objective was "To assess the levels and component-wise distribution of Creativity-Fostering Teacher Behaviour, Creative Teaching Attitude, and Teacher Self-Efficacy among Elementary School Teachers in Nagaland".

To examine the varying levels of creativity-fostering behaviours, the teachers were categorised into different groups based on their scores. These categories are presented in Table 4.8.

Table 4.8

Classification of the total sample into various levels of Creativity Fostering Teacher Behaviour.

Sr. No.	Range of Scores	Levels of Creativity Fostering Teacher Behaviour	Number of Teachers	Percentage of Teachers
1	262 & above	Extremely High	4	1%
2	247 - 261	High	61	9%
3	233 - 246	Above Moderate	114	17%
4	210 - 232	Moderate	288	44%
5	209 - 194	Below Moderate	117	18%
6	193 - 178	Low	55	8%
7	177 & below	Extremely Low	20	3%
	Total		659	100%

Figure 4.11

Bar graph illustrating the various levels of Creativity Fostering Teacher Behaviour

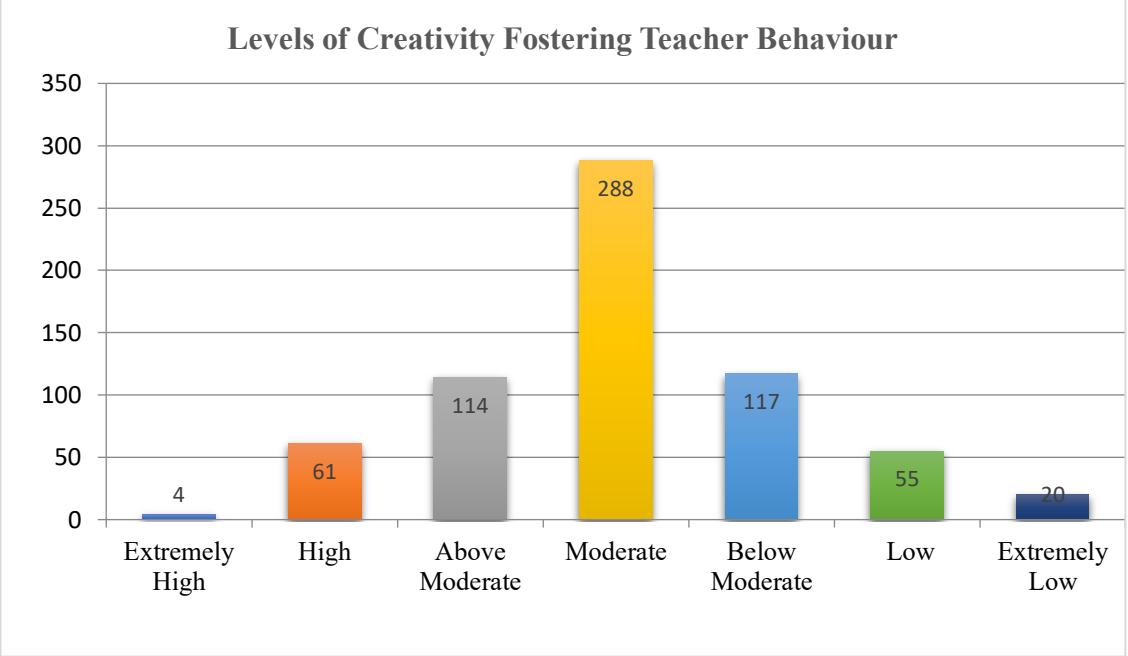


Table 4.8 and Figure 4.11 present the levels of Creativity Fostering Teacher Behaviour. The data shows that 1% (4) of the respondents exhibit "Extremely High Creativity Fostering Teacher Behaviour," 9% (61) display "High Creativity Fostering Teacher Behaviour," and 17% (114) are categorised as having "Above Moderate Creativity Fostering Teacher Behaviour." Additionally, 44% (288) demonstrate "Moderate Creativity Fostering Teacher Behaviour," while 18% (117) fall into the "Below Moderate Creativity Fostering Teacher Behaviour" category. Furthermore, 8% (55) show "Low Creativity Fostering Teacher Behaviour," and 3% (20) are classified as having "Extremely Low Creativity Fostering Teacher Behaviour." These results indicate variations in the levels of Creativity Fostering Teacher Behaviour among the teachers. Overall, it can be concluded that the majority of elementary school teachers in Nagaland exhibit moderate levels of creativity-fostering behaviour.

4.3.1 Dimension-wise Mean Scores of Creativity Fostering Teacher Behaviour based on Gender

The objective was to examine the dimension-wise distribution of creativity-fostering teacher behaviour based on gender. The findings are presented in the table below.

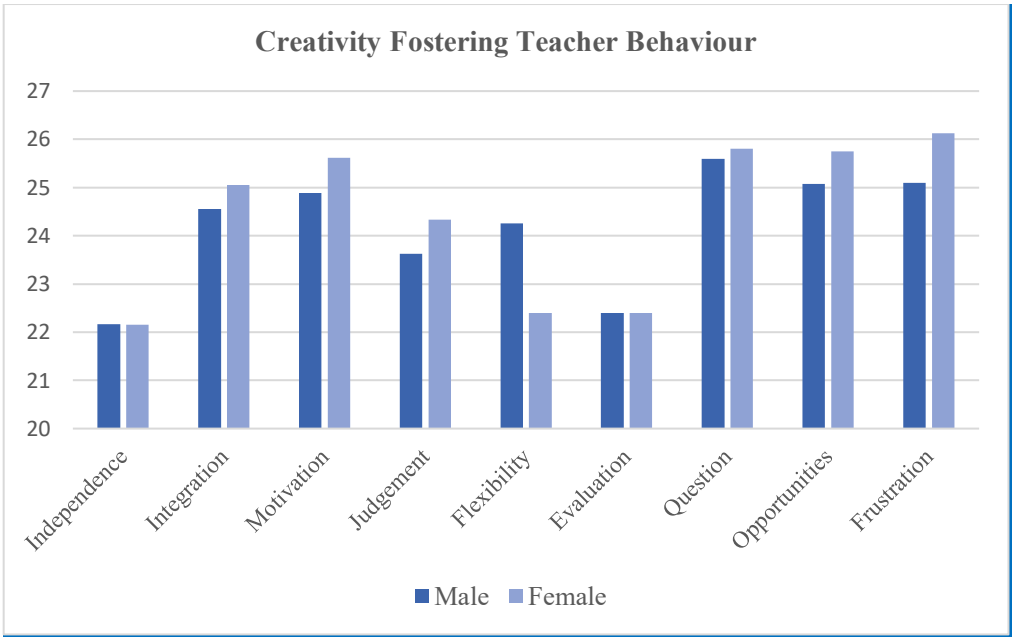
Table 4.9

Dimension-wise Mean Scores of Creativity Fostering Teacher Behaviour based on Gender

Sr. No	Dimension	Gender	N	M	S. D
1	Independence	Male	298	22.05	3.60
		Female	361	22.24	3.50
2	Integration	Male	298	24.62	3.05
		Female	361	24.96	2.69
3	Motivation	Male	298	25.06	3.02
		Female	361	25.43	2.88
4	Judgement	Male	298	23.94	2.89
		Female	361	24.02	2.83
5	Flexibility	Male	298	24.41	3.10
		Female	361	24.47	2.76
6	Evaluation	Male	298	22.48	3.86
		Female	361	22.35	3.59
7	Question	Male	298	25.67	3.08
		Female	361	25.74	2.87
8	Opportunities	Male	298	25.32	3.08
		Female	361	25.50	2.92
9	Frustration	Male	298	25.44	3.03
		Female	361	25.77	2.94

Figure 4.12

Bar graph showing the dimension-wise Mean Scores of Creativity Fostering Teacher Behaviour with respect to Gender



To examine the differences in the Creativity Fostering Teacher Behaviour dimension-wise between male and female elementary school teachers, an analysis was conducted using data collected from 659 participants. Among these, 298 respondents were male, and 361 were female. Nine dimensions were considered to assess the levels of Creativity Fostering Teacher Behaviour: Independence, Integration, Motivation, Judgment, Flexibility, Evaluation, Questioning, Opportunities, and Frustration. The mean scores for both genders were calculated. Female teachers recorded the highest mean score of 25.77 in the Frustration dimension, while female teachers had their lowest mean score of 22.24 in the Independence dimension. The highest mean score for male teachers was 25.67, which occurred in the Questioning dimension, while their lowest mean score was again in the Independence dimension at 22.05. Notably, both male and female elementary school teachers had their lowest scores in the Independence dimension.

4.3.2 Dimension-wise Mean Scores of Creativity Fostering Teacher Behaviour based on Type of School Management

The objective was to examine the dimension-wise distribution of creativity-fostering teacher behaviour based on the type of school management. The findings are presented in the table below.

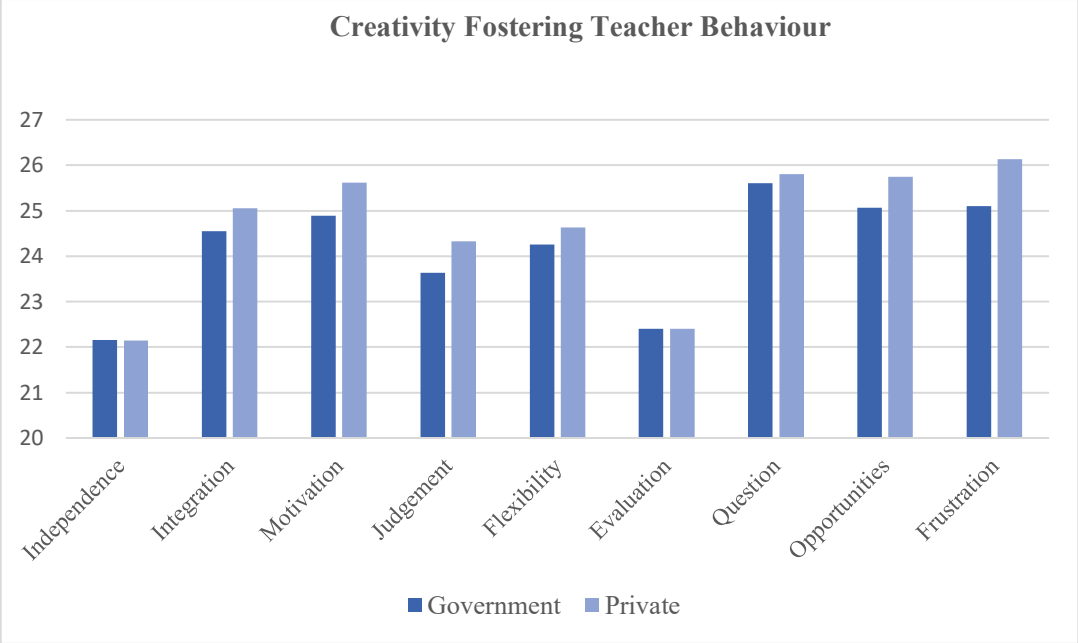
Table 4.10

Dimension-wise Mean Scores of Creativity Fostering Teacher Behaviour based on Type of School Management

Sr.No	Dimension	School Management	N	M	S. D
1	Independence	Govt.	338	22.16	3.43
		Pvt.	321	22.15	3.65
2	Integration	Govt.	338	24.55	2.81
		Pvt.	321	25.05	2.89
3	Motivation	Govt.	338	24.89	2.96
		Pvt.	321	25.62	2.90
4	Judgement	Govt.	338	23.63	2.91
		Pvt.	321	24.33	2.76
5	Flexibility	Govt.	338	24.26	2.87
		Pvt.	321	24.63	2.96
6	Evaluation	Govt.	338	22.40	3.69
		Pvt.	321	22.40	3.74
7	Question	Govt.	338	25.60	2.93
		Pvt.	321	25.81	3.00
8	Opportunities	Govt.	338	25.07	2.95
		Pvt.	321	25.75	2.99
9	Frustration	Govt.	338	25.10	2.94
		Pvt.	321	26.13	2.94

Figure 4.13

Bar graph showing the dimension-wise Mean Scores of Creativity Fostering Teacher Behaviour based on the Type of School Management



To examine the differences in the levels of Creativity Fostering Teacher Behaviour between Government and Private Elementary School Teachers, an analysis was conducted using data collected from 659 respondents. Among these, 338 were government teachers and 321 were private teachers. The study focused on nine dimensions to assess the differences in Creativity Fostering Teacher Behaviour: Independence, Integration, Motivation, Judgement, Flexibility, Evaluation, Questioning, Opportunities, and Frustration. The mean scores for each group of teachers were calculated. Private teachers had the highest mean score in the Frustration dimension, with a score of 26.13, while they recorded the lowest mean score of 22.15 in the Independence dimension. For government teachers, the highest mean score of 25.60 was in the Questioning dimension, and their lowest mean score was also in Independence, at 22.16. Notably, both government and private teachers had their lowest scores in the Independence dimension.

4.3.3 Dimension-wise Mean Scores of Creativity Fostering Teacher Behaviour based on Professional Qualification

The objective was to examine the dimension-wise distribution of creativity-fostering teacher behaviour based on the professional qualification. The findings are presented in the table below.

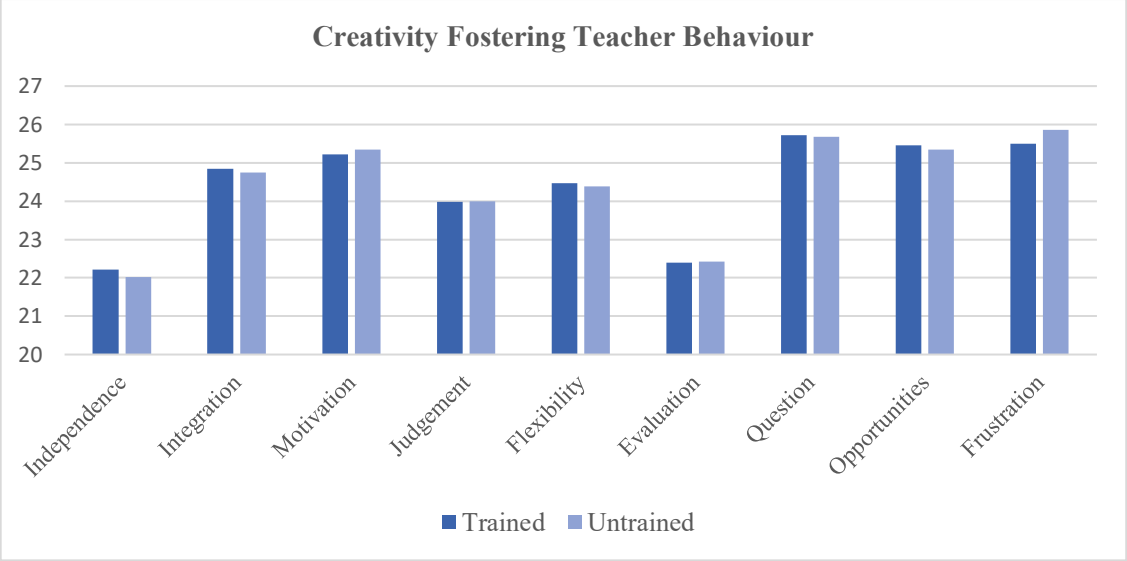
Table 4.11

Dimension-wise *Mean Scores of Creativity Fostering Teacher Behaviour based on Professional Qualification*

Sr.No	Dimension	Professional Qualification	N	M	S. D
1	Independence	Trained	434	22.22	3.31
		Untrained	225	22.02	3.95
2	Integration	Trained	434	24.84	2.77
		Untrained	225	24.74	3.04
3	Motivation	Trained	434	25.22	2.85
		Untrained	225	25.34	3.13
4	Judgement	Trained	434	23.98	2.72
		Untrained	225	23.99	3.11
5	Flexibility	Trained	434	24.47	2.81
		Untrained	225	24.38	3.12
6	Evaluation	Trained	434	22.40	3.66
		Untrained	225	22.43	3.81
7	Question	Trained	434	25.72	2.98
		Untrained	225	25.68	3.04
8	Opportunities	Trained	434	25.46	2.89
		Untrained	225	25.34	3.19
9	Frustration	Trained	434	25.50	2.85
		Untrained	225	25.86	3.22

Figure 4.14

Bar graph showing the dimension-wise Mean Scores of Creativity-Fostering Teacher Behaviour based on Professional Qualification



To investigate the differences in the level of Creativity Fostering Teacher Behaviour between trained and untrained elementary school teachers, an analysis was conducted using the collected data. The study included a total of 659 samples, consisting of 434 trained teachers and 225 untrained teachers. Nine dimensions were examined to assess the differences in Creativity Fostering Teacher Behaviour: Independence, Integration, Motivation, Judgment, Flexibility, Evaluation, Questioning, Opportunities, and Frustration. The mean scores for each group of teachers across these dimensions were calculated. The highest mean score among untrained teachers was 25.86 in the Frustration dimension, whereas the lowest mean score was 22.02 in the Independence dimension. For trained teachers, the highest mean score was 25.72, which also fell under the Questioning dimension, while the lowest mean score was 22.22 in the Independence dimension. Interestingly, both trained and untrained teachers scored the lowest in the Independence dimension, highlighting a common area for improvement.

4.3.4 Dimension-wise Mean Scores of Creativity Fostering Teacher Behaviour based on Teaching Experience

The objective was to examine the dimension-wise distribution of creativity-fostering teacher behaviour based on teaching experience. The findings are presented in the table below.

Table 4.12

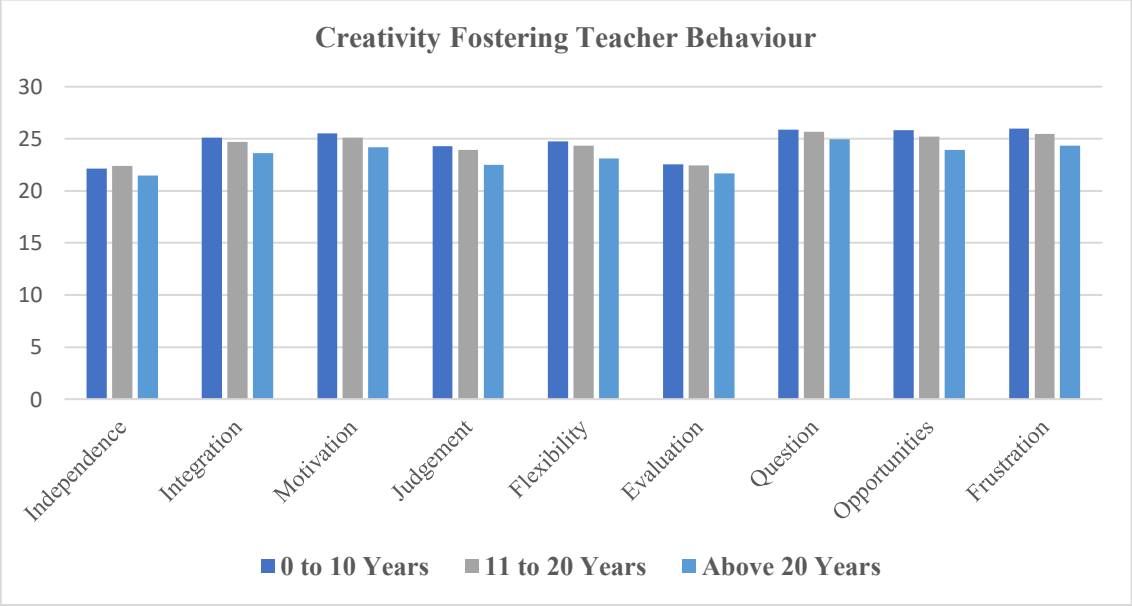
Dimension-wise Mean Scores of Creativity Fostering Teacher Behaviour based on Teaching Experience

Sr.No	Dimension	Teaching Experience	N	M	S. D
1	Independence	0 to 10 Years	375	22.15	3.61
		11 to 20 Years	213	22.39	3.45
		Above 20 Years	71	21.46	3.40
2	Integration	0 to 10 Years	375	25.10	2.76
		11 to 20 Years	213	24.60	2.76
		Above 20 Years	71	23.63	3.35
3	Motivation	0 to 10 Years	375	25.54	2.96
		11 to 20 Years	213	25.13	2.82
		Above 20 Years	71	24.20	3.04
4	Judgement	0 to 10 Years	375	24.28	2.74
		11 to 20 Years	213	23.95	2.77
		Above 20 Years	71	22.52	3.26
5	Flexibility	0 to 10 Years	375	24.76	2.76
		11 to 20 Years	213	24.33	2.83
		Above 20 Years	71	23.13	3..56
6	Evaluation	0 – 10 Years	375	22.53	3.75
		11 to 20 Years	213	22.44	3.57
		Above 20 Years	71	21.65	3.89

Sr.No	Dimension	Teaching Experience	N	M	S. D
7	Question	0 to 10 Years	375	25.88	3.06
		11 to 20 Years	213	25.65	2.81
		Above 20 Years	71	24.97	2.83
8	Opportunities	0 to 10 Years	375	25.81	2.92
		11 to 20 Years	213	25.23	2.84
		Above 20 Years	71	23.94	3.35
9	Frustration	0 to 10 Years	375	25.96	2.97
		11 to 20 Years	213	25.46	2.83
		Above 20 Years	71	24.34	3.17

Figure 4.15

Bar graph showing the dimension-wise Mean Scores of creativity-fostering teacher Behaviour with respect to Teaching Experience



To investigate the differences in the level of Creativity Fostering Teacher Behaviour across different experience groups among elementary school teachers, a

detailed analysis was conducted using data collected from participants, as shown in Table 4.12 and Figure 4.15. Out of a total of 659 respondents in the study, 375 had 0-10 years of teaching experience, 213 had 11-20 years, and 71 had more than 20 years of experience. Nine dimensions were analysed to evaluate the differences in Creativity Fostering Teacher Behaviour: Independence, Integration, Motivation, Judgment, Flexibility, Evaluation, Questioning, Opportunities, and Frustration. The mean scores for each dimension were calculated. Teachers with 0-10 years of experience exhibited the highest mean score of 25.96 in the Frustration dimension and the lowest mean score of 22.15 in the Independence dimension. Those with 11-20 years of experience had the highest mean score of 25.65 in the Questioning dimension, while their lowest mean score was 22.39 in Independence. For teachers with over 20 years of experience, the highest mean score was 24.97 in the Questioning dimension, with a lowest mean score of 21.46 also in the Independence dimension. While the highest mean scores varied among the different experience groups, the lowest mean scores were consistently observed in the Independence dimension across all three teacher groups.

4.4 Levels of Creative Teaching Attitude among Elementary School Teachers

The Objective was to assess the levels of Creative Teaching Attitude of Elementary School Teachers in Nagaland; for this, Descriptive Statistics were employed.

Table 4.13

Classification of the total sample into various levels of Creative Teaching Attitude

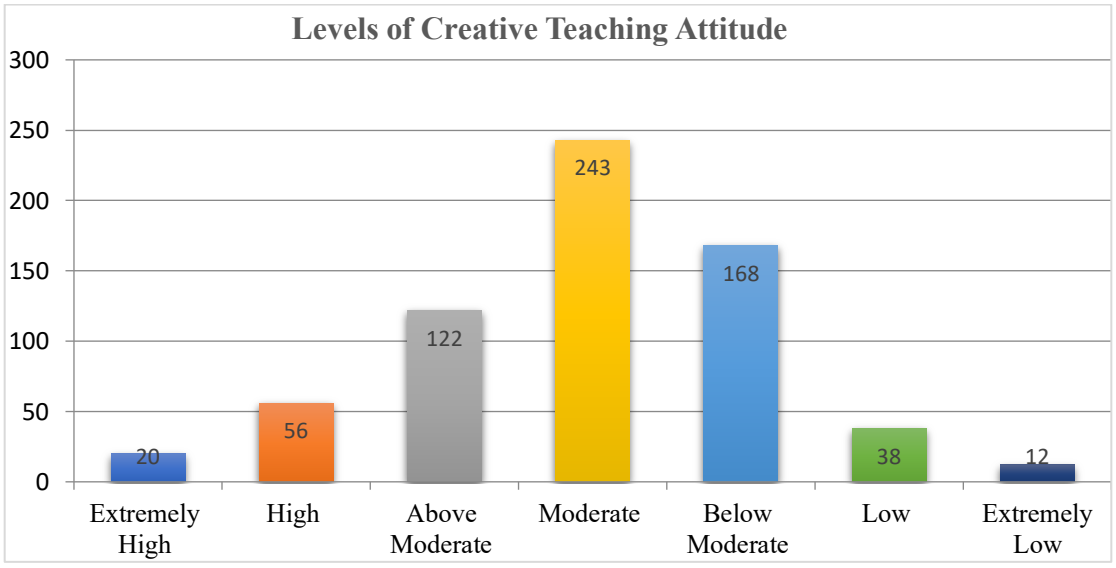
Sr. No.	Range of Scores	Levels of Creative Teaching Attitude	Number of Teachers	Percentage of Teachers
1	209 & above	Extremely High	20	3%
2	199 to 208	High	56	8%
3	190 to 198	Above Moderate	122	19%
4	177 to 189	Moderate	243	37%
5	168 to 176	Below Moderate	168	25%

Sr. No.	Range of Scores	Levels of Creative Teaching Attitude	Number of Teachers	Percentage of Teachers
6	158 to 167	Low	38	6%
7	157 & below	Extremely Low	12	2%
	Total		659	100%

Table 4.13 shows the distribution of Elementary School Teachers' Creative Teaching Attitudes. Specifically, 3% of participants exhibit an exceptionally positive attitude towards Creative Teaching, 8% demonstrate a high positive attitude, 19% possess an above moderate positive creative teaching attitude, 37% have a moderate creative teaching attitude, 25% show a below moderate creative teaching attitude, 6% possess a low creative teaching attitude, and 2% exhibit an unfauvourable attitude toward Creative Teaching. These results indicate a variation in the levels of Creative Teaching Attitude among teachers. Overall, it can be concluded that most elementary school teachers in Nagaland have a moderately favourable attitude toward creative teaching. Figure 4.16 illustrates the levels of Creative Teaching Attitude among the teachers.

Figure 4.16

Bar Graph showing the various levels of Creative Teaching Attitude



4.4.1 Dimension-wise Mean Scores of Creative Teaching Attitude based on Gender

The objective was to examine the distribution of the creative teaching attitude dimension-wise by gender. The findings are presented in the table below.

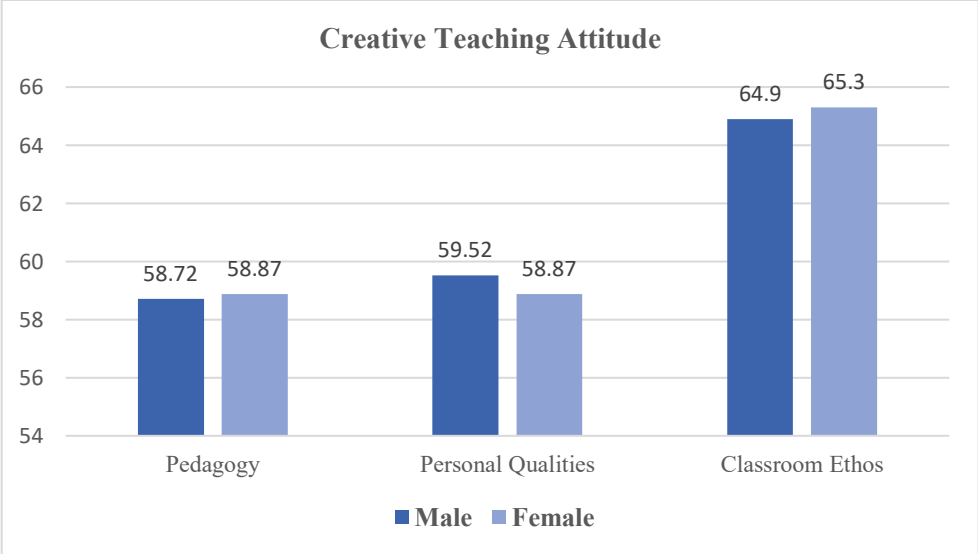
Table 4.14

Dimension-wise Mean Scores of Creative Teaching Attitude based on Gender

Sr.No	Dimension	Gender	N	M	S. D
1	Pedagogy	Male	298	58.72	4.97
		Female	361	58.87	4.60
2	Personal Qualities	Male	298	59.52	5.15
		Female	361	58.87	4.89
3	Classroom Ethos	Male	298	64.90	5.43
		Female	361	65.30	4.83

Figure 4.17

Bar graph showing the dimension-wise Mean Scores of Creative Teaching Attitude based on Gender



To analyse the differences in creative teaching attitudes between male and female elementary school teachers, an analysis was conducted using data from 659 teachers. Among these respondents, 298 were male and 361 were female. The analysis focused on three dimensions to assess the Creative Teaching Attitude: Pedagogy, Personal Qualities, and Classroom Ethos. The results indicated that female teachers had the highest mean score of 65.30 in the Classroom Ethos dimension, while their lowest mean score of 58.87 was observed in both Pedagogy and Personal Qualities. For male teachers, the highest mean score was 64.90 in the Classroom Ethos dimension, and the lowest mean score of 58.72 in the Pedagogy dimension

4.4.2 Dimension-wise Mean Scores of Creative Teaching Attitude based on Type of School Management.

The objective was to examine the distribution of the creative teaching attitude dimension-wise based on the type of school management. The findings are presented in the table below.

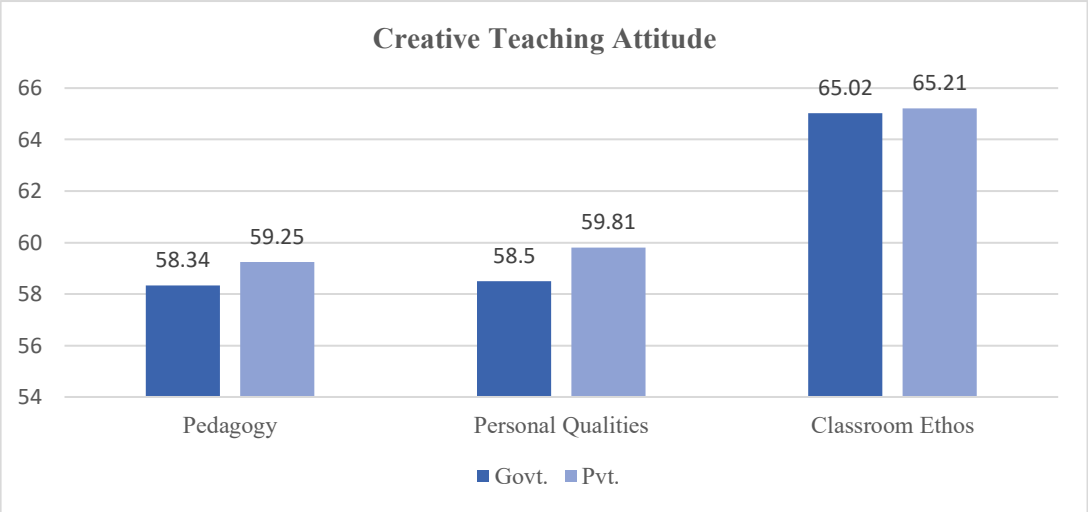
Table 4.15

Dimension-wise Mean Scores of Creative Teaching Attitude based on School Management

Sr. No	Dimensions	School Management	N	M	S. D
1	Pedagogy	Govt.	338	58.34	4.702
		Pvt.	321	59.25	4.808
2	Personal Qualities	Govt.	338	58.50	4.79
		Pvt.	321	59.81	5.151
3	Classroom Ethos	Govt.	338	65.02	4.867
		Pvt.	321	65.21	5.350

***Figure* 4.18.**

Bar graph showing the dimension-wise Mean Scores of Creative Teaching Attitude based on School Management



To determine the difference in the level of the Creative Teaching Attitude dimension-wise between Government and Private Elementary School Teachers, an analysis was conducted using the collected data. Out of 659 samples selected for the study, 338 respondents were Government Teachers and 321 respondents were Private Teachers. Three dimensions were considered to find out the difference in the level of Creative Teaching Attitude, viz., Pedagogy, Personal Qualities, and Classroom Ethos. The mean scores of the teachers belonging to both types of School Management were worked out. The highest mean score was seen in Private Teachers with 65.21 in the Classroom Ethos dimension, while the lowest mean score of 58.34 was observed in Government Teachers in the Pedagogy dimension. Government Teachers' highest mean score is 65.02, which falls under Classroom Ethos, and the lowest mean score is 58.34 in Pedagogy. Private Teachers' highest mean score is 65.21 in Classroom Ethos, and the lowest mean score is 59.25 in Pedagogy.

4.4.3 Dimension-wise Mean Scores of Creative Teaching Attitude based on Professional Qualification

The objective was to examine the distribution of the creative teaching attitude dimension-wise based on professional qualification. The findings are presented in the table below.

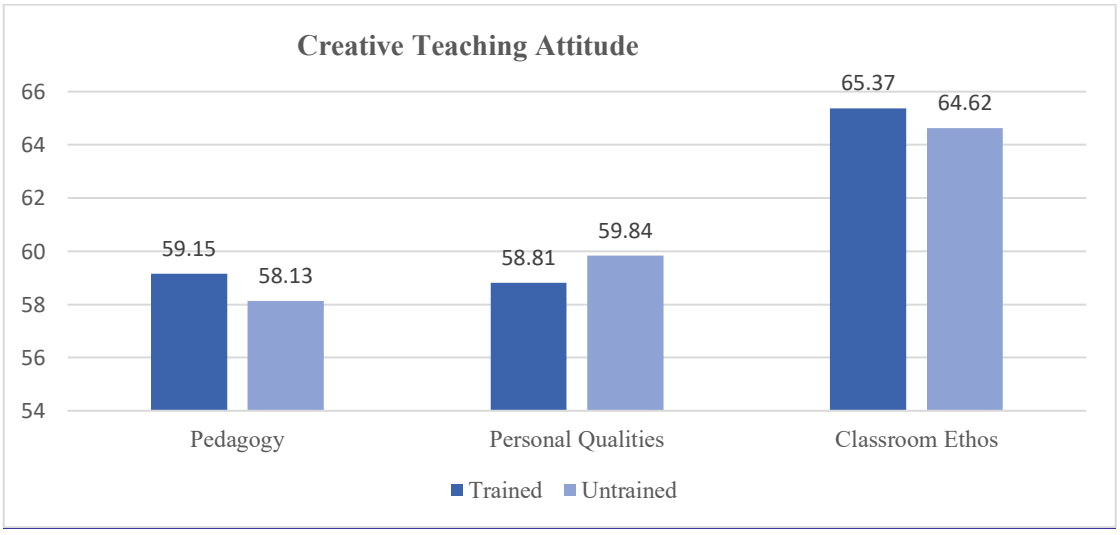
Table 4.16

Dimension-wise Mean Scores of Creative Teaching Attitude based on Professional Qualification

Sr. No	Dimensions	Professional Qualification	N	M	S. D
1	Pedagogy	Trained	434	59.15	4.60
		Untrained	225	58.13	5.01
2	Personal Qualities	Trained	434	58.81	4.70
		Untrained	225	59.84	5.51
3	Classroom Ethos	Trained	434	65.37	4.84
		Untrained	225	64.62	5.57

Figure 4.19

Bar graph showing the dimension-wise Mean Scores of Creative Teaching Attitude with respect to Professional Qualification



To determine the difference in the level of the Creative Teaching Attitude dimension-wise between Trained and Untrained Elementary School Teachers, an analysis was conducted using the collected data. Out of 659 sample selected for the study, 434 respondents were Trained Teachers and 225 respondents were Untrained Teachers. Three dimensions were considered to find out the difference in the level of Creative Teaching Attitude: Pedagogy, Personal Qualities, and Classroom Ethos. The mean scores of the teachers belonging to both types of Professional Qualification were worked out. The highest mean score was observed in Trained Teachers, with 65.37 in the Classroom Ethos dimension, while the lowest mean score was observed in both Trained and Untrained Teachers in the Pedagogy dimension. Trained Teachers' highest mean score is 65.37, which falls under Classroom Ethos, and the lowest mean score is 59.15 in Pedagogy. The highest mean score for Untrained Teachers is 64.62 in Classroom Ethos, and the lowest mean score is 58.13 in Pedagogy.

4.4.4 Dimension-wise Mean Scores of Creative Teaching Attitude based on Teaching Experience in Years

The objective was to examine the distribution of the creative teaching attitude dimension-wise based on the teaching experience in years. The findings are presented in the table below.

Table 4.17

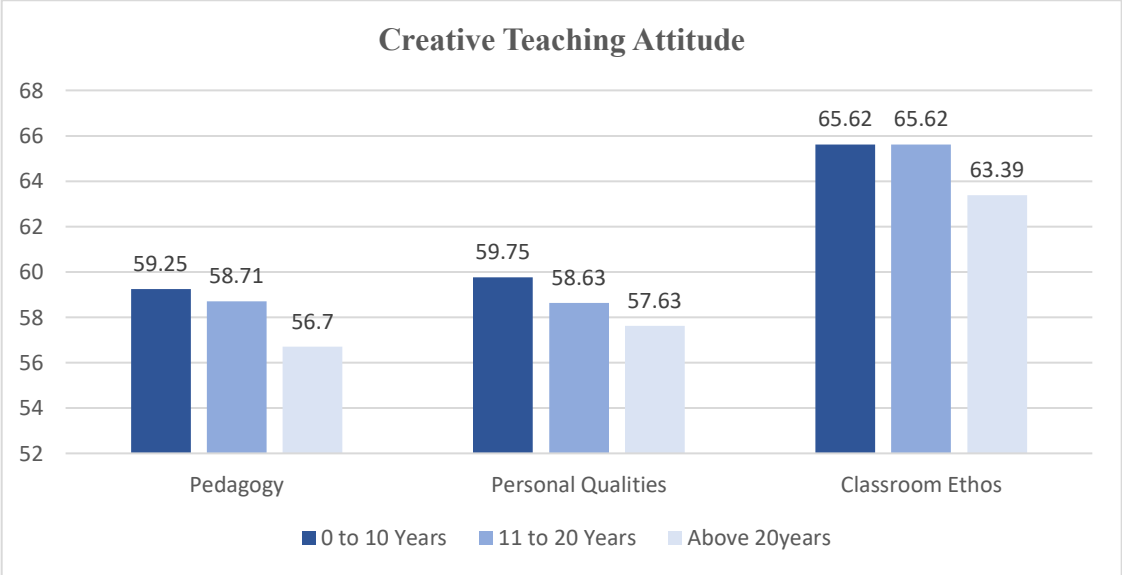
Dimension-wise Mean Scores of Creative Teaching Attitude based on Teaching Experience in Years

Sr.No	Dimensions	Teaching Experience	N	M	S. D
1	Pedagogy	0 to 10 Years	375	59.25	4.89
		11 to 20 Years	213	58.71	4.34
		Above 20 Years	71	56.70	4.87
2	Personal Qualities	0 to 10 Years	375	59.75	5.17
		11 to 20 Years	213	58.63	4.77
		Above 20 Years	71	57.63	4.467

Sr.No	Dimensions	Teaching Experience	N	M	S. D
3	Classroom Ethos	0 to 10 Years	375	65.62	5.453
		11 to 20 Years	213	65.62	5.453
		Above 20 Years	71	63.39	3.743

Figure 4.20

Bar graph showing the dimension-wise Mean Scores of Creative Teaching Attitude with respect to Teaching Experience



To determine the differences in the Creative Teaching Attitude among elementary school teachers based on their teaching experience (0-10 years, 11-20 years, and more than 20 years), an analysis was conducted using the collected data, as shown in Table 4.17 and Figure 4.20. Out of the 659 participants selected for the study, 375 respondents had 0-10 years of teaching experience, 213 respondents had 11-20 years of teaching experience, and 71 respondents had more than 20 years of teaching experience. Three dimensions were considered to assess the differences in Creative Teaching Attitude: Pedagogy, Personal Qualities, and Classroom Ethos. The mean scores for each group of teachers were

calculated. Among teachers with 0-10 years of experience, the highest mean score was 65.62 in the Classroom Ethos dimension, while the lowest mean score was 59.25 in Pedagogy. For those with 11-20 years of teaching experience, the highest mean score was 65.62, also in Classroom Ethos, with the lowest mean score at 58.63 in Personal Qualities. Teachers with more than 20 years of teaching experience had the highest mean score of 63.39 in Classroom Ethos and the lowest mean score of 56.70 in Pedagogy. While the lowest mean scores varied across the groups, the highest mean score was consistently observed in Classroom Ethos for all three teacher groups.

4.5 Levels of Teacher Self-Efficacy

The Objective was to assess the levels of Teacher Self-Efficacy of Elementary School Teachers in Nagaland; for this, Descriptive Statistics were employed.

Table 4.18

Classification of the total sample into various levels of Teacher Self-Efficacy

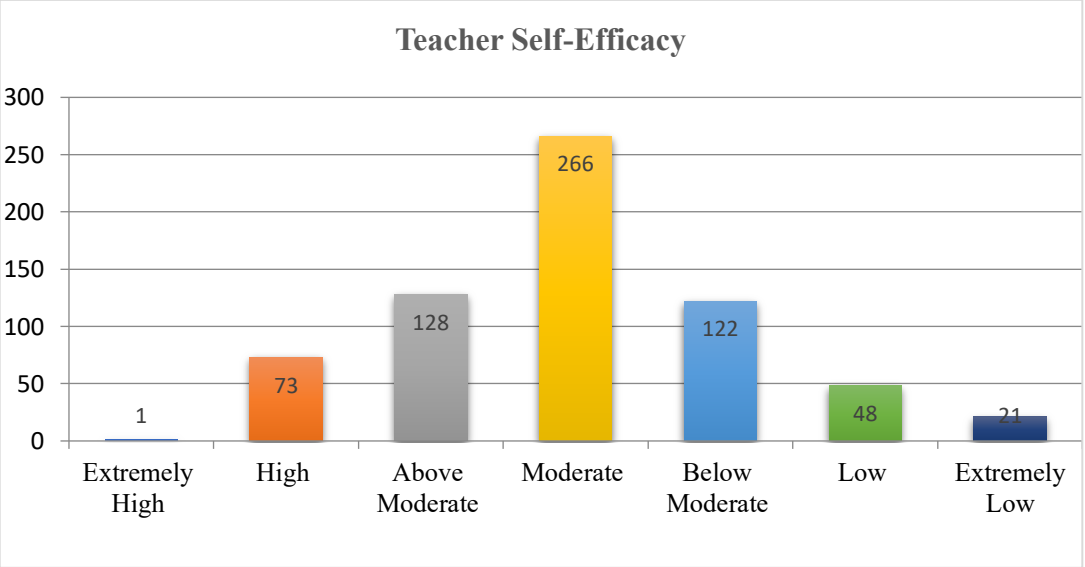
Sr. No.	Score Range	Levels of Teacher Self-Efficacy	Frequency	Percentage
1	218 & above	Extremely High	1	0%
2	205 - 217	High	73	11%
3	191 - 204	Above Moderate	128	20%
4	172 -190	Moderate	266	40%
5	158 -171	Below Moderate	122	19%
6	144 - 157	Low	48	7%
7	143 & below	Extremely Low	21	3%
	Total		659	100%

Table 4.18 displays the distribution of respondents by their levels of Teacher Self-Efficacy. The results show that 0% of respondents fall into the “Extremely High Teacher Self-Efficacy” category, 11% fall into the “High Teacher Self-Efficacy” category, 20% have “Above Moderate Teacher Self-Efficacy,” 40% have “Moderate Teacher Self-Efficacy,” 19% fall into the “Below Moderate Teacher Self-Efficacy” category, 7% have

"Low Teacher Self-Efficacy," and finally, 3% are classified as having "Extremely Low Teacher Self-Efficacy." These findings indicate a range of Teacher Self-Efficacy levels among teachers. Overall, it can be concluded that most elementary school teachers in Nagaland exhibit a moderate level of Teacher Self-Efficacy. Additionally, Figure 4.21 illustrates the levels of Creative Teaching Attitude among these teachers.

Figure 4.21

Bar Graph showing the various levels of Teacher Self-Efficacy



4.5.1 Dimension-wise Mean Scores of Teacher Self-Efficacy based on Gender

The objective was to examine the distribution of the teacher self-efficacy score dimension-wise by Gender. The findings are presented in the table below.

Table 4.19

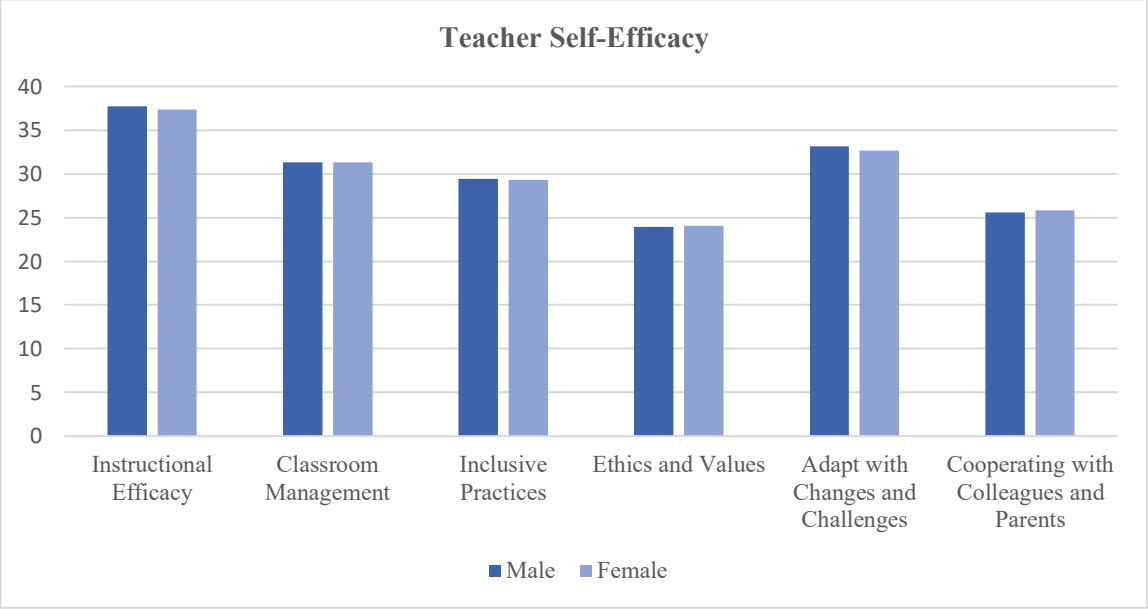
Dimension-wise Mean Scores of Teacher Self-Efficacy based on Gender

Sr. No	Dimensions	Gender	N	M	S. D
1	Instructional Efficacy	Male	298	37.70	4.40
		Female	361	37.34	3.98
2	Classroom Management	Male	298	31.66	4.54
		Female	361	31.32	4.17

Sr. No	Dimensions	Gender	N	M	S. D
3	Inclusive Practices	Male	298	29.42	3.57
		Female	361	29.29	3.31
4	Ethics and Values	Male	298	23.93	3.33
		Female	361	24.05	3.01
5	Adapt with Changes and Challenges	Male	298	33.14	4.87
		Female	361	32.68	4.47
6	Cooperating with Colleagues and Parents	Male	298	25.61	3.11
		Female	361	25.81	2.95

Figure 4.22

Bar graph showing the dimension-wise Mean Scores of Teacher Self-Efficacy with respect to Gender



To assess the differences in Teacher Self-Efficacy between male and female elementary school teachers, an analysis was conducted using data collected from 659 participants. Among the respondents, 298 were male and 361 were female. The study examined six dimensions of Teacher Self-Efficacy: Instructional Efficacy, Classroom

Management, Inclusive Practices, Ethics and Values, Adaptability to Changes and Challenges, and Cooperation with Colleagues and Parents. The mean scores for each dimension were calculated for both genders. Male teachers had the highest mean score of 37.70 in the Instructional Efficacy dimension, while their lowest mean score of 23.93 was in the Ethics and Values dimension. For female teachers, the highest mean score was 37.34, also in Instructional Efficacy, and the lowest was 25.05 in Ethics and Values. Overall, both male and female elementary school teachers exhibited the highest levels of self-efficacy in the Instructional Efficacy dimension and the lowest in the Ethics and Values dimension.

4.5.2 Dimension-wise Mean Scores of Teacher Self-Efficacy based on Type of School Management

The objective was to examine the distribution of the teacher self-efficacy score dimension-wise based on the Type of School Management. The findings are presented in the table below.

Table 4.20

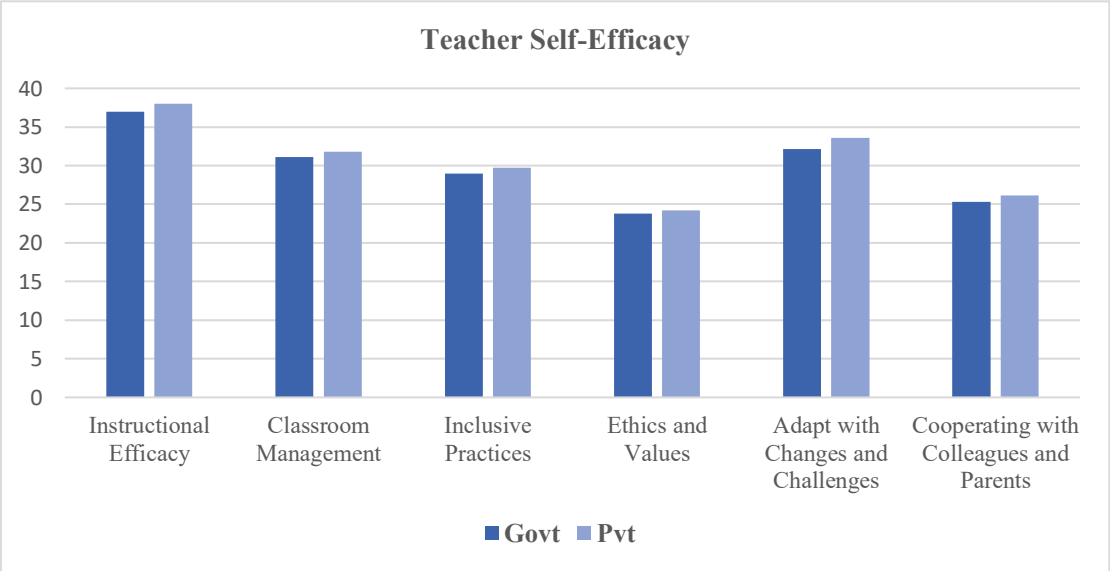
Dimension-wise Mean Scores of Teacher Self-Efficacy based on School Management

Sr.No	Dimensions	School Management	N	M	S. D
1	Instructional Efficacy	Govt.	338	36.99	3.93
		Pvt.	321	38.01	4.35
2	Classroom	Govt.	338	31.10	4.38
	Management	Pvt.	321	31.83	4.28
3	Inclusive Practices	Govt.	338	28.99	3.19
		Pvt.	321	29.70	3.61
4	Ethics and Values	Govt.	338	23.79	3.11
		Pvt.	321	24.19	3.19
5	Adapt with Changes	Govt.	338	32.14	4.77
	and Challenges	Pvt.	321	33.61	4.43

Sr.No	Dimensions	School Management	N	M	S. D
6	Cooperating with	Govt.	338	25.29	3.04
	Colleagues and Parents	Pvt.	321	26.13	2.95

Figure 4.23

Bar graph showing the dimension-wise Mean Scores of Teacher Self-Efficacy with respect to Type of School Management



To analyse the difference in the level of the Teacher Self-Efficacy dimension-wise between Government and Private Elementary School Teachers, an analysis was conducted using the collected data. A total sample of 659 respondents was selected for the study, including 338 Government Teachers and 321 Private Teachers. The analysis focused on six dimensions to determine differences in Teacher Self-Efficacy: Instructional Efficacy, Classroom Management, Inclusive Practices, Ethics and Values, Adaptation to Changes and Challenges, and Collaboration with Colleagues and Parents. The mean scores for each type of teacher were calculated. Government Teachers achieved the highest mean score of 36.99 in the Instructional Efficacy dimension and the lowest score of 23.79 in the Ethics and Values dimension. Private Teachers had the highest mean score of 38.01 in

Instructional Efficacy and the lowest mean score of 24.19 in Ethics and Values. Therefore, for both Government and Private Elementary School Teachers, the highest level of Self-Efficacy was found in the Instructional Efficacy dimension, while the lowest was in the Ethics and Values dimension.

4.5.3 Dimension-wise Mean Scores of Teacher Self-Efficacy based on Professional Qualification

The objective was to examine the distribution of the teacher self-efficacy score dimension-wise based on professional qualification. The findings are presented in the table below.

Table 4.21

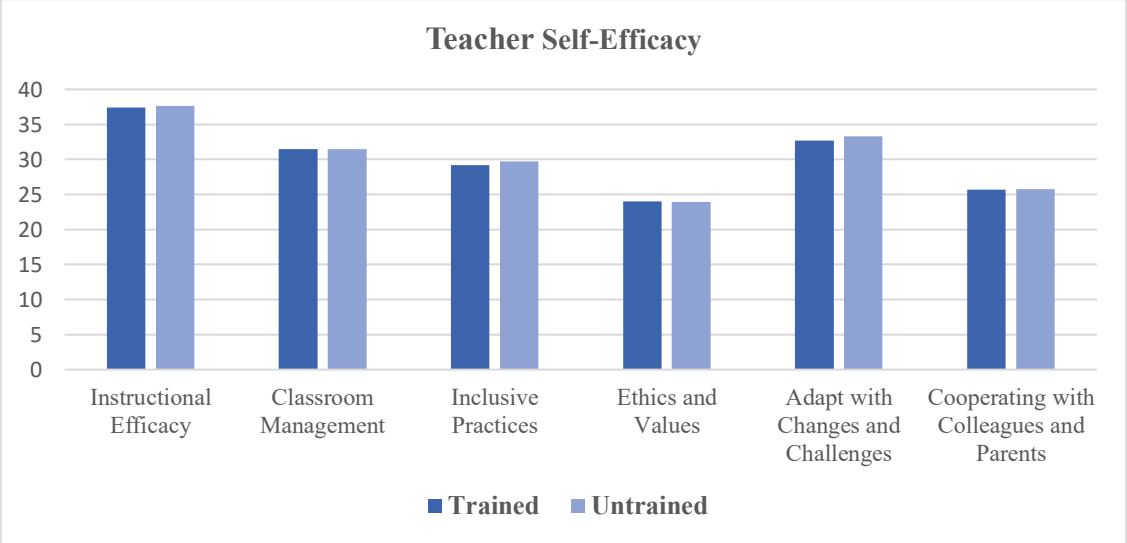
Dimension-wise Mean Scores of Teacher Self-Efficacy based on Professional Qualification

Sr.No	Dimensions	Professional Qualification	N	M	S. D
1	Instructional Efficacy	Trained	434	37.44	4.10
		Untrained	225	37.64	4.32
2	Classroom Management	Trained	434	31.48	4.36
		Untrained	225	31.46	4.32
3	Inclusive Practices	Trained	434	29.18	3.33
		Untrained	225	29.69	3.59
4	Ethics and Values	Trained	434	24.04	2.99
		Untrained	225	23.91	3.45
5	Adapt with Changes and Challenges	Trained	434	32.68	4.59
		Untrained	225	33.28	4.78

Sr.No	Dimensions	Professional Qualification	N	M	S. D
6	Cooperating with Colleagues and Parents	Trained	434	25.68	2.98
		Untrained	225	25.78	3.12

Figure 4.24

Bar graph showing the dimension-wise Mean Scores of Teacher Self-Efficacy with respect to Professional Qualification



To assess the differences in Teacher Self-Efficacy between trained and untrained elementary school teachers, an analysis was performed using data collected from a sample of 659 participants. Among these, 434 were trained teachers, while 225 were untrained teachers. The analysis focused on six dimensions of Teacher Self-Efficacy: Instructional Efficacy, Classroom Management, Inclusive Practices, Ethics and Values, Adaptability to Change and Challenges, and Collaboration with Colleagues and Parents. For the trained teachers, the highest mean score of 37.44 was observed in the Instructional Efficacy dimension, whereas the lowest mean score was 24.02 in the Ethics and Values dimension. In contrast, the untrained teachers achieved their highest mean score of 37.64 also in Instructional Efficacy, with a lowest mean score of 23.91 in Ethics and Values. Thus, both

trained and untrained teachers exhibited the highest mean scores in Instructional Efficacy and the lowest in Ethics and Values.

4.5.4 Dimension-wise Mean Scores of Teacher Self-Efficacy based on Teaching Experience

The objective was to examine the distribution of the teacher self-efficacy score dimension-wise based on teaching experience. The findings are presented in the table below.

Table 4.22

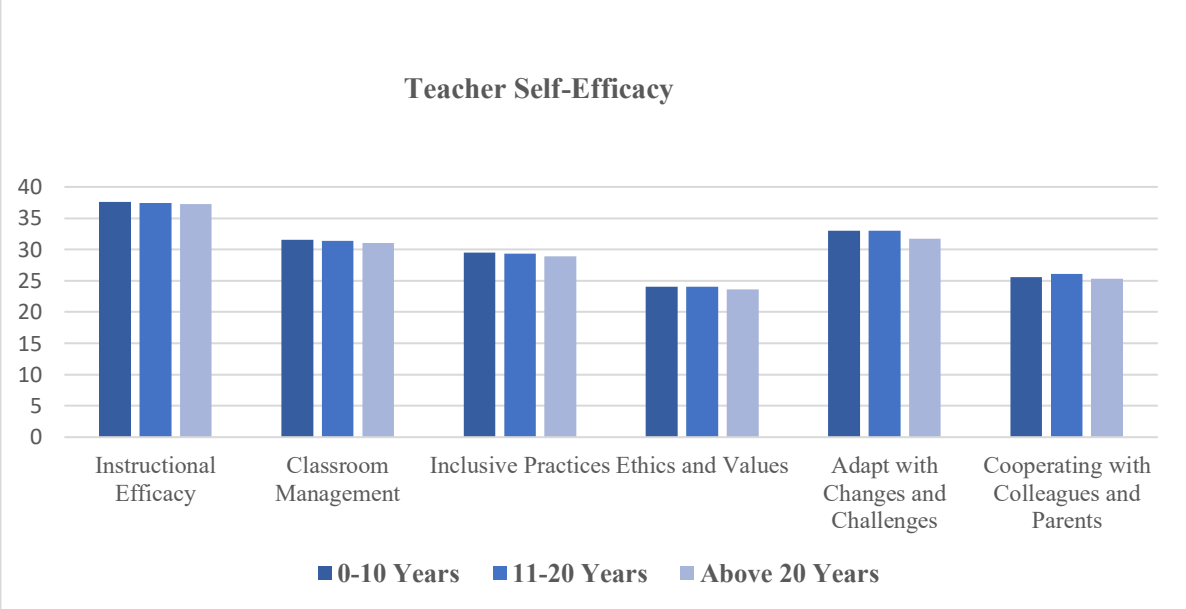
Dimension-wise Mean Scores of Teacher Self-Efficacy based on Teaching Experience

Sr.No	Dimensions	Teaching Experience	N	M	S. D
1	Instructional Efficacy	0 to 10 Years	375	37.60	4.22
		11 to 20 Years	213	37.43	4.04
		Above 20 Years	71	37.27	4.38
2	Classroom Management	0 to 10 Years	375	31.51	4.26
		11 to 20 Years	213	31.41	4.35
		Above 20 Years	71	31.03	4.76
3	Inclusive Practices	0 to 10 Years	375	29.47	3.53
		11 to 20 Years	213	29.30	3.27
		Above 20 Years	71	28.89	3.30
4	Ethics and Values	0 to 10 Years	375	24.02	3.22
		11 to 20 Years	213	24.06	2.97
		Above 20 Years	71	23.66	3.34
5	Adapt with Changes and Challenges	0 to 10 Years	375	33.01	4.61
		11 to 20 Years	213	33.04	4.56
		Above 20 Years	71	31.76	5.08

Sr.No	Dimensions	Teaching Experience	N	M	S. D
6	Cooperating with	0 to 10 Years	375	25.59	3.05
	Colleagues and	11 to 20 Years	213	26.07	3.02
	Parents	Above 20 Years	71	25.32	2.82

Figure 4.25

Bar graph showing the dimension-wise Mean Scores of Teacher Self-Efficacy with respect to Teaching Experience



To assess the differences in Teacher Self-Efficacy among Elementary School Teachers based on their years of teaching experience, an analysis was conducted using the collected data. Out of a total of 659 participants in the study, 375 had between 0-10 years of teaching experience, 213 had between 11-20 years, and 71 had over 20 years of experience. Six dimensions were examined to evaluate these differences in Teacher Self-Efficacy: Instructional Efficacy, Classroom Management, Inclusive Practices, Ethics and Values, Adaptability to Change and Challenges, and Collaboration with Colleagues and Parents. The mean scores for each group of teachers were calculated. For those with 0-10 years of experience, the highest mean score was 37.60 in the Instructional Efficacy

dimension, while the lowest was 24.02 in Ethics and Values. For teachers with 11-20 years of experience, the highest mean score was 37.43 in Instructional Efficacy, with the lowest mean score being 24.06 in Ethics and Values. Among teachers with more than 20 years of experience, the highest mean score was 37.27 in Instructional Efficacy, while the lowest score was 23.66 in Ethics and Values. Overall, Instructional Efficacy emerged as the dimension with the highest Self-Efficacy across all three teaching experience groups, whereas the Ethics and Values dimension had the lowest Self-Efficacy scores.

4.6 Analysis of Significance of Difference in the Mean Scores on the measure of Creativity Fostering Teacher Behaviour, with respect to different variables

The Second Objective of the study is to compare the mean scores of Creativity-Fostering Teacher Behaviour, in relation to Gender, Type of School Management, Professional Qualification, and Teaching Experience among elementary school teachers. The analysis in this section is to examine whether significant differences exist between different groups, such as Gender (Male & Female), School Management (Government & Private), Professional Qualification (Trained & Untrained), and Teaching Experience (0-10 years, 11-20 years, and above 20 years), on the variable Creativity-Fostering Teacher Behaviour. Analysis was conducted by testing the significance of the difference between their mean scores by using an independent sample t-test and One-way ANOVA.

4.6.1 Analysis of Significance of Difference in the Mean Scores on the measure of Creativity Fostering Teacher Behaviour with regard to Gender

H_{01}: There is no significant difference in mean scores of Creativity Fostering Teacher Behaviour between Male and Female Elementary School Teachers.

The hypothesis was to test whether there is a significant difference in the mean scores of Creativity Fostering Teacher Behaviour with regard to Gender. There were two groups, namely Male and Female, based on gender. The data were analysed with the help of an independent t-test, and the results are given in Table 4.23

Table 4.23

Difference in the Mean Scores of Creativity Fostering Teacher Behaviour between Male and Female Elementary School Teachers

Gender	N	Mean	SD	t-value	Cohen's d	Remarks
Male	298	218.99	22.33	0.90	NA	Not Significant
Female	361	220.47	19.92			

NA: Not Applicable

An independent sample *t*-test was conducted to compare the creativity-fostering teacher behaviour scores between male and female elementary school teachers. The *t*-value is 0.90 with $df = 657$, and $p > .05$. The result suggests that the mean scores of creativity-fostering teacher behaviour of male and female elementary school teachers did not differ significantly. As a result, we fail to reject the null hypothesis, which states that there is no significant difference in the mean scores of creativity-fostering teacher behaviour between male and female elementary school teachers. Therefore, it can be concluded that both male and female elementary school teachers demonstrate creativity-fostering behaviour to the same extent.

4.6.2 Analysis of Significance of Difference in the Mean Scores on the measure of Creativity Fostering Teacher Behaviour with regard to School Management

H_{02}: There is no significant difference in mean scores of Creativity Fostering Teacher Behaviour between Government and Private Elementary School Teachers.

The hypothesis was to test whether there is a significant difference in the mean scores of Creativity Fostering Teacher Behaviour with regard to School Management. There were two groups, namely Government Teachers and Private Teachers, based on School Management. The data were analysed with the help of an independent t-test, and the results are given in Table 4.24.

Table 4.24

Difference in the Mean Scores of Creativity Fostering Teacher Behaviour between Government and Private Elementary School Teachers

School Management	N	Mean	SD	t-value	Cohen's d	Remarks
Government	338	217.66	21.04	2.59*	.202	Significant
Private	321	221.89	20.86			

**Significant at 0.05 level*

An independent sample *t*-test was conducted to compare the creativity-fostering teacher behaviour scores between government and private elementary school teachers. the mean score for government teachers (M = 217.66, SD = 21.04) was lower than the mean score of Private Teachers (M = 221.89, SD = 20.86), $p < 0.05$. The *t*-value is 2.59 with df = 657, which is significant at the 0.05 level of significance. However, the effect size was small (*Cohen's d* = 0.202), indicating that the difference between groups had limited significance (Cohen, 1988).

The result suggests that the mean scores of creativity-fostering teacher behaviour of government and private elementary school teachers differ significantly. Thus, the null hypothesis, which states that there is no significant difference in the mean scores of creativity-fostering teacher behaviour between government and private elementary school teachers, is rejected. It may, therefore, be said that private elementary school teachers demonstrate more creativity fostering behaviour as compared to their counterparts, government teachers.

4.6.3 Analysis of Significance of Difference in the Mean Scores on the measure of Creativity Fostering Teacher Behaviour with regard to Professional Qualification

H_{03}: There is no significant difference in mean scores of Creativity Fostering Teacher Behaviour between Trained and Untrained Elementary School Teachers.

The hypothesis was to test whether there is a significant difference in the mean scores of Creativity Fostering Teacher Behaviour with regard to Professional Qualification. There were two groups, namely Trained and Untrained Teachers, based on

Professional Qualification. The data were analysed with the help of an independent t-test, and the results are given in Table 4.25.

Table 4.25

Difference in the Mean Scores of Creativity Fostering Teacher Behaviour between Trained and Untrained Elementary School Teachers

Professional Qualification	N	Mean	SD	t-value	Cohen's d	Remarks
Trained	434	219.81	20.17	0.303	NA	Not Significant
Untrained	225	219.78	22.67			

NA: Not Applicable

An independent sample *t*-test was conducted to compare the creativity-fostering teacher behaviour scores between trained and untrained elementary school teachers. the *t*-value is 0.303 with *df* = 657, which is not significant at the 0.05 level of significance. The result suggests that the mean scores of creativity-fostering teacher behaviour of trained and untrained elementary school teachers did not differ significantly. Thus, we fail to reject the null hypothesis, which states that there is no significant difference in the mean scores of creativity-fostering teacher behaviour between trained and untrained elementary school teachers. It may, therefore, be said that both trained and untrained elementary school teachers demonstrate creativity-fostering behaviour to the same extent.

4.6.4 Analysis of Significance of Difference in the Mean Scores on the measure of Creativity Fostering Teacher Behaviour with regard to Teaching Experience

H_{04}: There is no significant difference in mean scores of Creativity Fostering Teacher Behaviour among Elementary School Teachers with 0-10 years, 11-20 years, and more than 20 years of teaching experience.

The hypothesis was to test whether there is a significant difference in the mean scores of Creativity Fostering Teacher Behaviour with regard to Teaching Experience. There were three levels of teaching experience: teachers with 0-10 years, 11-20 years, and

those with more than 20 years. The data were analysed with the help of One-way ANOVA, and the results are given in Table 4.26

Table 4.26

Summary of One-way ANOVA on the difference in the effect of Teaching Experience on Creativity Fostering Teacher Behaviour

Test of Homogeneity of Variance					
Group (Teaching Experience)	N	Mean	Std. Deviation	Levene's Statistic	Sig.
0 - 10 Years	375	222.01	20.37	2.417	
11 - 20 Years	213	219.24	20.26	.090	
Above 20 Years	71	209.85	23.93		

ANOVA						
Creativity Fostering Teacher Behaviour	Sum of Squares	df	Mean Square	F	Eta Squared	Sig.
Between Groups	8925.76	2	4462.88	10.36	.031	.001
Within Groups	282494.59	656	430.632			
Total	291420	658				

Post Hoc Tests

Teaching Experience Groups	Mean Difference	Sig.	95% Confidence Interval (LL – UL)	
0 to 10 years – Above 20 years	12.16*	.001	5.85	18.47
0 to 10 years – 11 to 20 years	2.76	.268	-1.42	6.94
11 to 20 years – Above 20 years	9.39*	.003	2.72	16.08

**Significant at 0.05 level*

The hypothesis tests whether the creativity-fostering teacher behaviour of teachers differs significantly across different groups. The elementary school teachers were grouped into three categories: group 1: 0 to 10 years of teaching experience, group 2: 11 to 20 years of teaching experience, and group 3: above 20 years of teaching experience. Since Levene's statistic is not significant (2.417, p =.090), the equal variance was assumed. The ANOVA results suggest that the creativity-fostering teacher behaviour scores of the groups differ significantly, $F(2, 656) = 10.364$, $p < 0.05$. The effect size, calculated using eta squared, was .031, which is small (Fritz et al., 2012). Thus, the null hypothesis which states that there is no significant difference in the mean scores of creativity fostering teacher behaviour among elementary school teachers with 0 -10 years, 11-20 years, and above 20 years of teaching experience, is rejected.

To check for individual differences between groups, Post-hoc comparisons were assessed using Tukey (Kramer's) HSD. The Tukey (Kramer's) HSD was applied because the groups were unequal with homogenous variances (Levene's statistic is not significant) on the dependent variable. The test indicated that the mean score for teachers with 0 to 10 years of teaching experience (M = 222.01, SD = 20.37) was significantly different from that of teachers with more than 20 years of experience (M = 209.85, SD = 23.93). Teachers with 11 to 20 years of teaching experience (M = 219.24, SD = 20.26) differed significantly from teachers with more than 20 years of teaching experience. The mean difference was significant at the 0.05 level of significance. However, the comparison between teachers with 0 to 10 years of teaching experience and those with 11 to 20 years revealed no statistically significant difference. On the whole, it may be said that the creativity-fostering teacher behaviour of elementary school teachers was highest at the beginning of their career and gradually declined with increasing years in the profession.

4.7 Analysis of Significance of Difference in the Mean Scores on the measure of Creative Teaching Attitude with respect to different variables

The Third Objective of the study is to compare the mean scores of Creative Teaching Attitude, in relation to Gender, Type of School Management, Professional Qualification, and Teaching Experience among elementary school teachers.

The analysis in this section is to examine whether significant differences exist between different groups, such as Gender (Male & Female), School Management (Government & Private), Professional Qualification (Trained & Untrained), and Teaching Experience (0-10 years, 11-20 years, and above 20 years), on the variable of Creative Teaching Attitude**.** Analysis was done by testing the significance of the difference between their mean scores by using an independent sample t-test and One-way ANOVA.

4.7.1 Analysis of Significance of Difference in the Mean Scores on the measure of Creative Teaching Attitude with regard to Gender

H_{05}: There is no significant difference in mean scores of Creative Teaching Attitude between Male and Female Elementary School Teachers.

The hypothesis was to test whether there is a significant difference in the mean scores of Creative Teaching Attitude with regard to Gender. There were two groups, namely Male and Female, based on gender. The dataset was subjected to an independent t-test analysis, and the findings are detailed in Table 4.27.

Table 4.27: *Difference in the Mean Scores of Creative Teaching Attitude between Male and Female Elementary School Teachers*

Gender	N	Mean	SD	t-value	Cohen's d	Remarks
Male	298	183.14	18.13	0.106	NA	Not Significant
Female	361	183.03	12.15			

NA: Not Applicable

An independent sample *t*-test was conducted to compare the creative teaching attitude scores between male and female elementary school teachers. The *t*-value is 0.106 with *df* = 657, which is not significant at the 0.05 level of significance. The results suggest that the mean scores of the creative teaching attitude of male and female elementary school teachers did not differ significantly. Thus, we fail to reject the null hypothesis, which states that there is no significant difference in the mean scores of creative teaching attitude between male and female elementary school teachers. It may, therefore, be said that both male and female elementary school teachers have a similar attitude towards creative teaching.

4.7.2 Analysis of Significance of Difference in the Mean Scores on the measure of Creative Teaching Attitude with regard to Type of School Management

H_{06}: There is no significant difference in mean scores of Creative Teaching Attitude between Government and Private Elementary School Teachers.

The hypothesis was to test whether there is a significant difference in the mean scores of Creative Teaching Attitude with regard to School Management. There were two levels of school management: government teachers and private teachers. The data were analysed with the help of an independent t-test, and the results are given in Table 4.28.

Table 4.28

Difference in the Mean Scores of Creative Teaching Attitude between Government and Private Elementary School Teachers

School Management	N	Mean	SD	t-value	Cohen's d	Remarks
Government	338	181.84	11.82	2.60*	.203	Significant
Private	321	184.39	13.26			

**Significant at 0.05 level*

An independent sample t-test was conducted to compare the creative teaching attitude scores between government and private elementary school teachers. The mean score for government teachers (M = 181.84, SD = 11.82) was lower than that for private teachers (M = 184.39, SD = 13.26), $p < 0.05$. The t-value is 2.60 with df = 657, which is significant at the 0.05 level of significance. However, the effect size was small (*Cohen's d* = 0.203), indicating that the difference between groups had limited significance (Cohen, 1988). The results suggest that the mean scores of creative teaching attitudes of government and private elementary school teachers differ significantly. Thus, the null hypothesis, which states that there is no significant difference in the mean scores of creative teaching attitude between government and private elementary school teachers, is rejected. It may, therefore, be said that private elementary school teachers have a more favourable attitude towards creative teaching as compared to their counterparts, government teachers.

4.7.3 Analysis of Significance of Difference in the Mean Scores on the measure of Creative Teaching Attitude with regard to Professional Qualification

H_{07}: There is no significant difference in mean scores of Creative Teaching Attitude between Trained and Untrained Elementary School Teachers.

The hypothesis was to test whether there is a significant difference in the mean scores of Creative Teaching Attitude with regard to Professional Qualification. There were two groups of Professional Qualification, namely Trained and Untrained Teachers. The data were analysed with the help of an independent t-test, and the results are given in Table 4.29

Table 4.29

Difference in the Mean Scores of Creative Teaching Attitude between Trained and Untrained Elementary School Teachers

Professional Qualification	N	Mean	SD	t-value	Cohen's d	Remarks
Trained	434	183.33	11.86	0.71	NA	Not Significant
Untrained	225	182.59	13.91			

NA: Not Applicable

An independent sample *t*-test was conducted to compare the creative teaching attitude scores between trained and untrained elementary school teachers. The *t*-value is 0.71 with $df = 657$, which is not significant at the 0.05 level of significance. The results suggest that the mean scores of the creative teaching attitude of trained and untrained elementary school teachers did not differ significantly. Thus, we fail to reject the null hypothesis, which states that there is no significant difference in the mean scores of creative teaching attitude between trained and untrained elementary school teachers. It may, therefore, be said that both trained and untrained elementary school teachers have similar attitudes towards creative teaching.

4.7.4 Analysis of Significance of Difference in the Mean Scores on the measure of Creative Teaching Attitude with regard to Teaching Experience

H_{08}: There is no significant difference in mean scores of Creative Teaching Attitude among Elementary School Teachers with 0-10 years, 11-20 years, and more than 20 years of teaching experience.

The hypothesis was to test whether there is a significant difference in the mean scores of Creative Teaching Attitude with regard to Teaching Experience. There were three levels of Teaching Experience, namely, Group 1 (0-10 years), Group 2 (11-20 years), and Group 3 (above 20 years of teaching experience). The data were analysed with the help of One-Way ANOVA, and the results are given in Table 4.30.

Table 4.30

Summary of One-Way ANOVA on the difference in the effect of Teaching Experience on Teachers' Creative Teaching Attitude

Test of Homogeneity of Variance

Group (Teaching Experience)	N	Mean	Std. Deviation	Levene's Statistic	Sig.
0 to10 Years	375	184.63	13.27	4.45	
11 to 20 Years	213	182.14	11.35	0.01	
Above 20 Years	71	177.73	10.75		

ANOVA

Creative Teaching Attitude	Sum of Squares	df	Mean Square	F	Eta Squared	Sig.
Between Groups	3115.31	2	1557.657	10.08	.030	<.001
Within Groups	101311.42	656	154.438			
Total	104426.73	658				

Post Hoc Tests

Teaching Experience Groups	Mean Difference	Sig.	95% Confidence Interval (LL – UL)	
0 to 10 years – 11 to 20 years	2.48*	.044	.05	4.92
11 to 20 years – Above 20 years	4.40*	.011	.86	7.95
0 to 10 years – Above 20 years	6.89*	<.001	3.45	10.33

**Significant at 0.05 level*

The hypothesis tests whether the creative teaching attitude of teachers differs across different groups. The elementary school teachers were grouped into three categories based on their teaching experience. Group 1: 1 to 10 years, Group 2: 11 to 20 years, and Group 3: Above 20 years of teaching experience. The ANOVA results suggest that the creative teaching attitude scores of the groups differ significantly, $F\ (2, 656) = 10.08$, $p < 0.05$. The effect size, calculated using eta squared, was .030, which is small (Fritz et al., 2012). Thus, the null hypothesis that there is no significant difference in the mean scores of creative teaching attitude among elementary school teachers with 0 to 10 years, 11 to 20 years, and above 20 years of teaching experience is rejected.

To check for individual differences between groups, Post-hoc comparisons were carried out using the Games-Howell test. The Games-Howell test was applied as the groups were unequal with unequal variances (Levene's Statistic is significant) on the dependent variable. The test indicated that the mean scores for teachers with 0 to 10 years of experience ($M = 184.63$, $SD = 13.27$) differed significantly from those with 11 to 20 years of experience ($M = 182.14$, $SD = 11.35$) and those with more than 20 years of experience ($M = 177.73$, $SD = 10.75$). It may therefore be said that teachers with 0 to 10 years of teaching experience were found to have the most favourable attitude towards creative teaching, compared to the groups with 11 to 20 years and more than 20 years of teaching experience. Significant difference was also observed between teachers with 11 to 20 years ($M = 182.14$, $SD = 11.35$) and those above 20 years of teaching experience ($M = 177.73$, $SD = 10.75$) with teachers having teaching experience between 11 to 20 years

reporting a more favourable attitude towards creative teaching as compared to the highly experienced teachers with more than 20 years of teaching experience. On the whole, it may be said that the attitude towards creative teaching was most favourable with the less experienced teachers or teachers at the early years of their career, and gradually declines with increasing years in the profession.

4.8 Analysis of Significance of Difference in the Mean Scores on the measure of Teacher Self-Efficacy with respect to different variables

The Fourth objective of the study is to compare the mean scores of Teacher Self-Efficacy in relation to Gender, Type of School Management, Professional Qualification, and Teaching Experience among elementary school teachers.

The analysis in this section is to examine whether significant differences exist between different groups, such as Gender (Male & Female), School Management (Government & Private), Professional Qualification (Trained & Untrained), and Teaching Experience (0-10 years, 11-20 years, and above 20 years), on the variable of Teacher Self-Efficacy. Analysis was conducted by testing the significance of the difference between their mean scores using an independent sample t-test and One-way ANOVA.

4.8.1 Analysis of Significance of Difference in the Mean Scores on the measure of Teacher Self-Efficacy with regard to Gender

H_{09}: There is no significant difference in mean scores of Teacher Self-Efficacy between Male and Female Elementary School Teachers.

The hypothesis was to test whether there is a significant difference in the mean scores of Teacher Self-Efficacy with regard to Gender. There were two groups, namely Male and Female, based on gender. The data was analysed with the help of a t-test, and the results are given in Table 4.31

Table 4.31

Comparison of Mean Teacher Self-Efficacy Scores between Male and Female Elementary School Teachers

Gender	N	Mean	SD	t-value	Cohen's d	Remarks
Male	298	181.46	19.97	0.66	NA	Not Significant
Female	361	180.48	17.42			

NA: Not Applicable

An independent sample t-test was conducted to compare the teacher self-efficacy scores between male and female elementary school teachers. The *t*-value is 0.66 with *df* = 657, which is not significant at the 0.05 level of significance. The results suggest that the mean scores of teacher self-efficacy for male and female elementary school teachers did not differ significantly. Thus, we fail to reject the null hypothesis, which states that there is no significant difference in the mean scores of teacher self-efficacy between male and female elementary school teachers. It may, therefore, be said that both male and female elementary school teachers were found to believe to the same extent in their ability to succeed in a situation.

4.8.2 Analysis of Significance of Difference in the Mean Scores on the measure of Teacher Self-Efficacy with regard to School Management

H_{010}: There is no significant difference in mean scores of Teacher Self-Efficacy between Government and Private Elementary School Teachers.

The hypothesis was to test whether there is a significant difference in the mean scores of Teacher Self-Efficacy related to School Management between two groups: Government Teachers and Private Teachers. The data were analysed using a t-test, and the results are presented in Table 4.32.

Table 4.32

Comparison of Mean Teacher Self-Efficacy Scores between Government and Private Elementary School Teachers

School Management	N	Mean	SD	t-value	Cohen's d	Remarks
Government	338	178.09	18.03	4.045*	.315	Significant
Private	321	183.89	18.76			

**Significant at 0.05 level*

An independent sample t-test was conducted to compare the teacher self-efficacy scores between teachers from government and private elementary schools. The mean score for government teachers ($M = 178.09$, $SD = 18.03$) was lower than that of private teachers ($M = 183.89$, $SD = 18.76$), $p < 0.05$. The t-value is 4.045 with $df = 657$, which is significant at the 0.05 level of significance. The effect size was medium, with *Cohen's d* = 0.315 indicating a medium difference between groups (Cohen, 1988). The results suggest that the mean scores of teacher self-efficacy for government and private elementary school teachers differ significantly. Thus, the null hypothesis, which states that there is no significant difference in the mean scores of teacher self-efficacy between government and private elementary school teachers, is rejected. It may, therefore, be said that private elementary school teachers are more confident in their ability to succeed in a situation as compared to their counterparts, government teachers.

4.8.3 Analysis of Significance of Difference in the Mean Scores on the measure of Teacher Self-Efficacy with regard to Professional Qualification

H_{011}: There is no significant difference in mean scores of Teacher Self-Efficacy between Trained and Untrained Teachers.

The hypothesis was to test whether there is a significant difference in the mean scores of Teacher Self-Efficacy with regard to Professional Qualification. There were two groups of Professional Qualification, namely Trained and Untrained Teachers. The data were analysed with the help of a t-test, and the results are given in Table 4.33.

Table 4.33

Comparison of Mean Teacher Self-Efficacy Scores between Trained and Untrained Elementary School Teachers

Professional Qualification	N	Mean	SD	t-value	Cohen's d	Remarks
Trained	434	180.49	18.01	0.831	NA	Not Significant
Untrained	225	181.76	19.73			

NA: Not Applicable

An independent sample t-test was conducted to compare the teacher self-efficacy scores between trained and untrained elementary school teachers. The *t*-value is 0.831 with *df* = 657, which is not significant at the 0.05 level of significance. The results suggest that the mean scores of teacher self-efficacy for trained and untrained elementary school teachers did not differ significantly. Thus, we fail to reject the null hypothesis that there is no significant difference in the mean scores of teacher self-efficacy between trained and untrained elementary school teachers. It may, therefore, be said that both trained and untrained elementary school teachers were found to believe to the same extent in their ability to succeed in a situation.

4.8.4 Analysis of Significance of Difference in the Mean Scores on the measure of Teacher Self-Efficacy with regard to Teaching Experience

H_{012}: There is no significant difference in mean scores of Teacher Self-Efficacy among Elementary School Teachers with 0-10 years, 11-20 years, and more than 20 years of teaching experience.

The hypothesis was to test whether there is a significant difference in the mean scores of Teacher Self-Efficacy with regard to Teaching Experience. The Elementary School Teachers were grouped into three categories based on their teaching experience. Group 1: 0 to 10 years, Group 2: 11 to 20 years, and Group 3: Above 20 years of teaching experience. The data were analysed with the help of One-Way ANOVA, and the results are given in Table 4.34.

Table 4.34

Summary of One-Way ANOVA on the difference in the effect of Teaching Experience on Teacher Self-Efficacy

ANOVA

Group (Teaching Experience)	N	Mean	Std. Deviation	F	Sig.
0 to10 Years	375	181.28	18.80	1.029	0.358
11 to 20 Years	213	181.30	17.75		
Above 20 Years	71	177.93	20.09		

The hypothesis tests whether teacher self-efficacy differs across different groups. The elementary school teachers were grouped into three categories based on their teaching experience. Group 1: 0 to 10 years, Group 2: 11 to 20 years, and Group 3: Above 20 years of teaching experience. The ANOVA results suggest that the teacher self-efficacy scores of the groups did not differ significantly, $F\ (2, 656) = 1.029$, $p > 0.05$. Thus, we fail to reject the null hypothesis, which states that there is no significant difference in the mean scores of teacher self-efficacy among elementary school teachers with 0 to 10 years, 11 to 20 years, and more than 20 years of teaching experience. It may, therefore, be said that teachers belonging to different groups of teaching experience were found to believe to the same extent in their ability to succeed in a situation.

4.9 Factorial ANOVA of Creativity Fostering Teacher Behaviour Scores of Elementary School Teachers.

The Fifth Objective was to examine the interaction effects of Gender, Type of School Management, Professional Qualification, and Teaching Experience on Creativity-Fostering Teacher Behaviour. A 2×2×2×3 Analysis of Variance (ANOVA) was conducted, involving two gender groups (Male and Female), two types of school management (Government and Private), two categories of professional qualification (Trained and Untrained Teachers), and three levels of teaching experience (0-10 years, 11-20 years, and over 20 years).

H_{013}: There is no significant interaction effect of Gender, Type of School Management, Professional Qualification, and Teaching Experience on Creativity Fostering Teacher Behaviour of Elementary School Teachers.

Table 4.35

Summary of factorial ANOVA of Creativity Fostering Teacher Behaviour Scores of Elementary School Teachers.

Tests of Between-Subjects Effects

Dependent Variable: Creativity Fostering Teacher Behaviour.

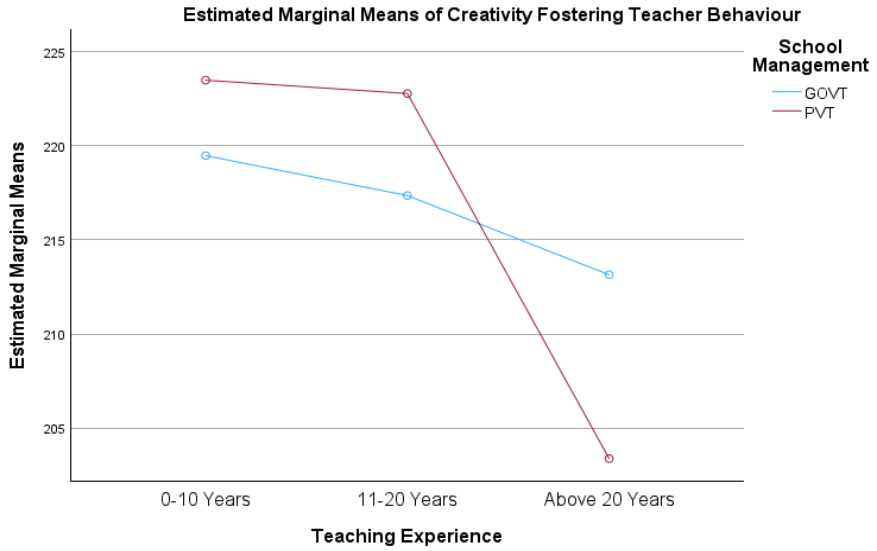
Source of Variance	SS	df	MS	F	*p*
A×B	42.07	1	42.07	.09	.754
A×C	280.35	1	280.35	.65	.418
A×D	1376.47	2	688.23	1.61	.200
B×C	183.15	1	183.15	.42	.513
B×D	3713.90	2	1856.95	4.35*	.013
C×D	1107.43	2	553.71	1.29	.274
A×B×C	1124.38	1	1124.38	2.63	.105
A×B×D	432.00	2	216.00	.50	.603
A×C×D	203.20	2	101.60	.23	.788
B×C×D	884.62	2	442.31	1.03	.355
A×B×C×D	831.97	2	415.98	.97	.378
Error	270882.73	635	426.58		
Total	32129846.00	659			

Note: (A) = Gender, (B) = School Management, (C) = Professional Qualification, (D) = Teaching Experience. SS = Sum of Squares; MS = Mean Square; *p* values are two-tailed. *R^2 = .070, Adjusted R^2 = .037. Asterisks (*)* indicate significance at the .05 level.

A factorial ANOVA was conducted to examine the interaction effects among Gender (A), Type of School Management (B), Professional Qualification (C), and Teaching Experience (D) on Creativity-Fostering Teacher Behaviour of elementary school teachers. The analysis revealed that the interaction between School Management and Teaching Experience **(**B×D) was statistically significant, F (2, 635) = 4.353, p = .013. It may therefore be inferred that the creativity-fostering behaviour of elementary school teachers was found to be dependent on the interaction between types of school management and teaching experience. Other interaction effects were not statistically significant (p > .05), indicating that gender, professional qualification, and their combined interactions did not have a substantial impact on the dependent variable. Thus, the null hypothesis H_{O13} "There is no significant interaction effect of gender, type of school management, professional qualification, and teaching experience on creativity-fostering teacher behaviour of elementary school teachers" is partially rejected. To understand the trend of influence of the interaction between Type of School Management and Teaching Experience, a graph has been plotted in Figure 4.26.

Figure 4.26

Trend of influence of interaction between Types of School Management and Teaching Experience on Creativity Fostering Teacher Behaviour.



From Figure 4.26, it can be seen that the creativity-fostering teacher behaviour for both government and private teachers declines with increasing years of teaching experience. The creativity-fostering teacher behaviour is higher for private teachers in the cases of 0 to 10 years and 11 to 20 years of teaching experience, as compared to their government counterparts. For government teachers, the creativity-fostering teacher behaviour gradually declines with increasing years of teaching experience. However, in the case of private teachers, we see a sharp decline for highly experienced teachers. It may therefore be said that, although both government and private elementary school teachers experienced a decline in their creativity fostering teacher behaviour with increasing years of teaching experience, there is a sharper decline in the case of highly experienced teachers teaching in private schools.

4.10 Factorial ANOVA of Creative Teaching Attitude Scores of Elementary School Teachers

The Sixth objective was to examine the interaction effects of Gender, Type of School Management, Professional Qualification, and Teaching Experience on Creative Teaching Attitude. A 2×2×2×3 Analysis of Variance (ANOVA) was conducted, involving two gender groups (Male and Female), two types of school management (Government and Private), two categories of professional qualification (Trained and Untrained Teachers), and three levels of teaching experience (0-10 years, 11-20 years, and over 20 years). The results are presented in Table 4.36.

H_{014}: There is no significant interaction effect of Gender, Type of School Management, Professional Qualification, and Teaching Experience on Creative Teaching Attitude of Elementary School Teachers.

Table 4.36

Summary of factorial ANOVA of Creative Teaching Attitude Scores of Elementary School Teachers.

Tests of Between-Subjects Effects

Dependent Variable: Creative Teaching Attitude

Source of Variance	SS	df	MS	F	*p*
A×B	.01	1	.01	.00	.992
A×C	2.18	1	2.18	.014	.906
A×D	555.95	2	277.97	1.78	.169
B×C	128.34	1	128.34	.82	.365
B×D	118.24	2	59.12	.37	.685
C×D	33.93	2	16.96	.10	.897
A×B×C	270.95	1	270.95	1.73	.188
A×B×D	88.20	2	44.10	.28	.754
A×C×D	56.36	2	28.18	.18	.835
B×C×D	145.38	2	72.69	.46	.628
A×B×C×D	290.82	2	145.41	.93	.394
Error	98984.25	635	155.88		
Total	22193080.00	659			

Note. (A) = Gender, (B) = School Management, (C) = Professional Qualification, (D) = Teaching Experience. SS = Sum of Squares; MS = Mean Square; *p* values are two-tailed. $R^2 = .070$, *Adjusted* $R^2 = .037$. *Asterisks (*) indicate significance at the .05 level.

The factorial ANOVA results indicate that all interaction effects among the independent variables—Gender (A), Type of School Management (B), Professional Qualification (C), and Teaching Experience (D) on Creative Teaching Attitude of Elementary School Teachers are statistically insignificant. Since none of the interaction effects are statistically significant, we fail to reject the null hypothesis H_{014}, which states that, "There is no significant interaction effect of gender, type of school management, professional qualification, and teaching experience on creative teaching attitude of

elementary school teachers", meaning that the independent variables do not interact significantly in shaping creative teaching attitude among elementary school teachers.

4.11 Factorial ANOVA of Teacher Self-Efficacy Scores of Elementary School Teachers

The Seventh objective was to examine the interaction effects of Gender, Type of School Management, Professional Qualification, and Teaching Experience on Teacher Self-Efficacy. A 2×2×2×3 Analysis of Variance (ANOVA) was conducted, involving two gender groups (Male and Female), two types of school management (Government and Private), two categories of professional qualification (Trained and Untrained Teachers), and three levels of teaching experience (0-10 years, 11-20 years, and over 20 years). The results are presented in Table 4.37

H_{015}: There is no significant interaction effect of Gender, Type of School Management, Professional Qualification, and Teaching Experience on Teacher Self-Efficacy of Elementary School Teachers.

Table 4.37

Summary of factorial ANOVA of Teacher Self-Efficacy Scores of Elementary School Teachers.

Tests of Between-Subjects Effects

Dependent Variable: Teacher Self-Efficacy

Source of Variance	SS	df	MS	F	p
A×B	1350.63	1	1350.63	4.01*	.045
A×C	1509.02	1	1509.02	4.48*	.035
A×D	446.22	2	223.11	.66	.515
B×C	8.73	1	8.73	.02	.872
B×D	1753.99	2	876.99	2.60	.074
C×D	171.98	2	85.99	.25	.774
A×B×C	104.57	1	104.57	.31	.577
A×B×D	493.49	2	246.74	.73	.481

Source of Variance	SS	df	MS	F	P
A×C×D	246.88	2	123.44	.36	.693
B×C×D	149.37	2	74.68	.22	.801
A×B×C×D	1531.60	2	765.80	2.27	.103
Error	213537.80	635	336.28	-	-
Total	21798164.00	659	-	-	-

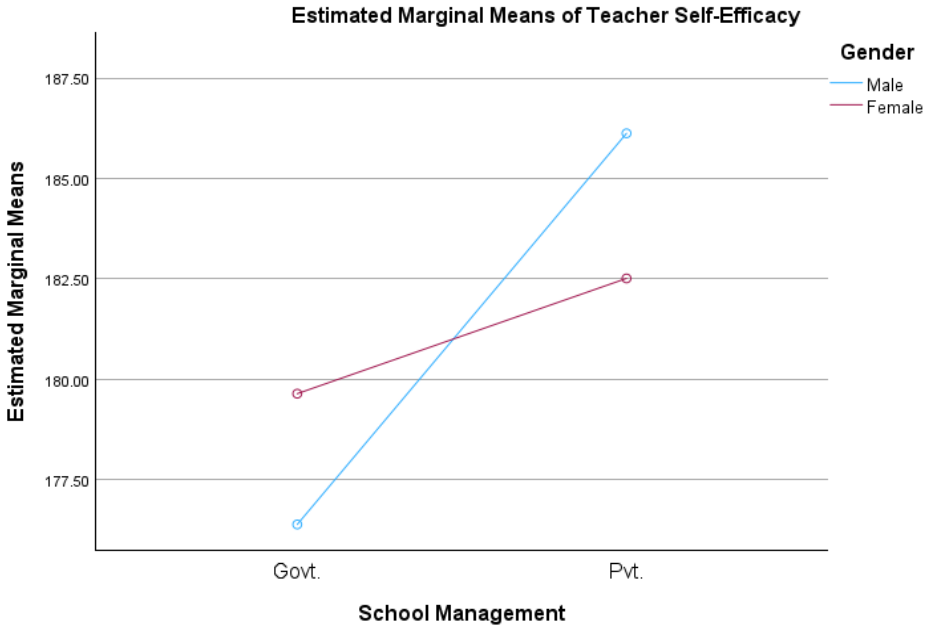
Note. (A) = Gender, (B) = School Management, (C) = Professional Qualification, (D) = Teaching Experience. SS = Sum of Squares; MS = Mean Square; *p* values are two-tailed. *R^2 = .070, Adjusted R^2 = .037. Asterisks (**) indicate significance at the .05 level.

A factorial ANOVA was conducted to examine the interaction effects among Gender (A), Type of School Management (B), Professional Qualification (C), and Teaching Experience (D) on Teacher Self-Efficacy of elementary school teachers. The analysis revealed statistically significant two-way interaction effects between Gender and School Management (A×B), $F(1, 635) = 4.016$, $p = .045$, and between Gender and Professional Qualification (A×C), $F(1, 635) = 4.487$, $p = .035$. These findings suggest that teacher self-efficacy is influenced by the interaction of gender with both school management and professional qualification. However, the remaining two-way, three-way, and four-way interactions were not statistically significant ($p > .05$), indicating that the combined effect of all four independent variables does not contribute additional variation beyond the identified two-way interactions. Therefore, the null hypothesis H_{015} stating that "There is no significant interaction effect of gender, type of school management, professional qualification, and teaching experience on teacher self-efficacy" is partially rejected.

To understand the trends in the influence of interaction between gender and type of school management, as well as between gender and professional qualification, graphs are plotted in Figures 4.27 and 4.28.

Figure 4.27

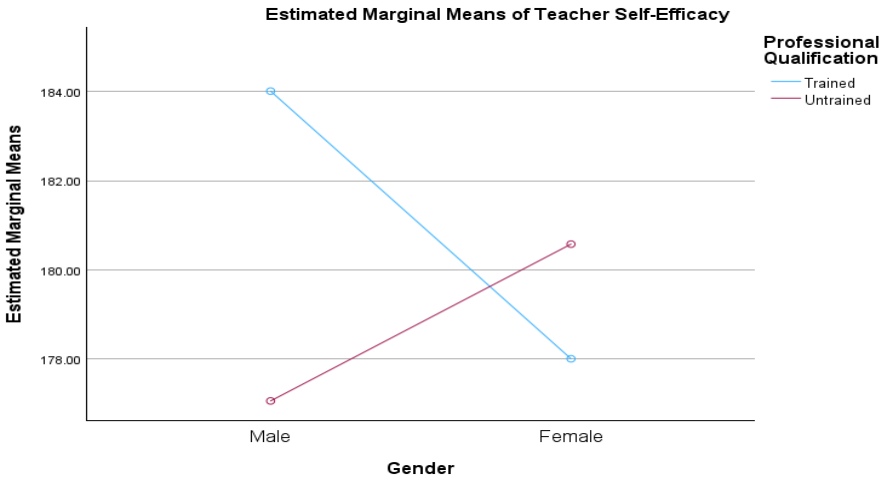
Trend of influence of the interaction between Gender and Type of School Management on Teacher Self-Efficacy



It is evident from the graph in Figure 4.27 that as the type of school changes from government schools to private schools, there is a sharp increase in the teacher self-efficacy for male teachers. Male teachers working in private schools were found to have higher teacher self-efficacy than those working in government schools. Similarly, female teachers' higher self-efficacy was observed in the case of private school teachers compared to that of female teachers in government schools.

Figure 4.28

Trend of influence of the interaction between Gender and Professional Qualification on Teacher Self-Efficacy



It is evident from Figure 4.28 that the self-efficacy of trained male teachers is significantly higher than that of untrained male teachers. In the case of female teachers, higher self-efficacy was observed for untrained teachers. Further, it can be observed that trained male teachers had higher self-efficacy as compared to their female counterparts. In the case of untrained teachers, female teachers have higher self-efficacy compared to their male counterparts.

4.12 Correlation Analysis between the variables Creativity Fostering Teacher Behaviour and Creative Teaching Attitude

The Eighth Objective was to determine the relationship between creativity-fostering teacher Behaviour and creative teaching attitude among elementary school teachers. The data were analysed with the help of Product-Moment Correlation, and the results are given in Table 4.38.

H_{016}: There is no significant relationship between Creativity Fostering Teacher Behaviour and Creative Teaching Attitude of Elementary School Teachers.

Table 4.38

Correlation coefficient between Creativity Fostering Teacher Behaviour and Creative Teaching Attitude of Elementary School Teachers

Variable	Creative Teaching Attitude	*p*
Creativity Fostering Teacher Behaviour	0.399*	<0.01

***Significant at 0.01 level (2 2-tailed)*

From Table 4.38, it is clear that the correlation coefficient between creativity-fostering teacher behaviour and creative teaching attitude is $r = 0.399$, $p < 0.01$. This indicates a statistically significant positive relationship at the 0.01 level. Therefore, we reject the null hypothesis, which states that there is no significant relationship between creativity-fostering teacher behaviour and creative teaching attitude among elementary school teachers.

The relationship between creativity-fostering teacher behaviour and a creative teaching attitude shows a low positive correlation (Schober et al., 2018). This means that as teachers' attitudes towards creative teaching become more favourable, their creativity-fostering behaviours tend to improve as well. Conversely, an increase in creativity-fostering behaviour is associated with a more positive attitude towards creative teaching.

4.13 Correlation Analysis between the Variables Creativity Fostering Teacher Behaviour and Teacher Self-Efficacy

The Ninth Objective was to determine the relationship between Creativity Fostering Teacher Behaviour and Teacher Self-Efficacy among Elementary School Teachers. The data were analysed with the help of Product-Moment Correlation, and the results are given in Table 4.39

H_{017}: There is no significant relationship between Creativity Fostering Teacher Behaviour and Teacher Self-Efficacy of Elementary School Teachers.

Table 4.39

Correlation coefficient between Creativity Fostering Teacher Behaviour and Teacher Self-Efficacy of Elementary School Teachers

Variable	Teacher Self-Efficacy	*p*
Creativity Fostering Teacher Behaviour	0.483**	<0.01

***Significant at 0.01 level (2 2-tailed)*

From Table 4.39, it is evident that the correlation coefficient *(r)* between creativity-fostering teacher behaviour and teacher self-efficacy is $r = 0.483$, which is positive and significant ($p < .001$). This implies a positive and significant relationship between creativity-fostering teacher behaviour and teacher self-efficacy. Thus, the null hypothesis, which states that there is no significant relationship between creativity-fostering teacher behaviour and teacher self-efficacy of elementary school teachers, is rejected.

Further, the relation between creativity-fostering teacher behaviour and teacher self-efficacy can be interpreted as a moderate correlation (Schober et al., 2018). The obtained correlation value is positive, indicating that an increase in Teacher Self-Efficacy is associated with a corresponding increase in Creativity Fostering Teacher Behaviour. It may, therefore, be said that the higher the Self-Efficacy of the Teacher, the better will be the Creativity Fostering Behaviour of the Teacher and vice versa.

4.14 Correlation Analysis between the Variables Creative Teaching Attitude and Teacher Self-Efficacy

The Tenth Objective was to determine the relationship between Creative Teaching Attitude and Teacher Self-Efficacy among Elementary School Teachers. The data were analysed with the help of Product-Moment Correlation, and the results are given in Table 4.40.

H_{018}: There is no significant relationship between Creative Teaching Attitude and Teacher Self-Efficacy of Elementary School Teachers.

Table 4.40

Correlation coefficient between Creative Teaching Attitude and Teacher Self-Efficacy of Elementary School Teachers

Variable	Teacher Self-Efficacy	*p*
Creative Teaching Attitude	0.394**	<0.01

***Significant at 0.01 level (2-tailed)*

From Table 4.40, it is evident that the correlation coefficient (*r)* between creative teaching attitude and teacher self-efficacy is 0.394*,* which is positive and significant *(p* < 0.01*)*. This implies a positive and significant relationship between creative teaching attitude and teacher self-efficacy. Thus, the null hypothesis that there is no significant relationship between Creative Teaching Attitude and Teacher Self-Efficacy of Elementary School Teachers is rejected.

Furthermore, the relationship between creative teaching attitude and teacher self-efficacy can be interpreted as having a low correlation (Schober et al., 2018). The obtained correlation value is positive, indicating that an increase in teacher self-efficacy is associated with a corresponding increase in the creative teaching attitude of teachers. It may, therefore, be said that the higher the self-efficacy of the teacher, the more favourable the attitude towards creative teaching and vice versa.

4.15 Regression analysis for the prediction of Creativity Fostering Teacher Behaviour based on Creative Teaching Attitude and Teacher Self-Efficacy

The Eleventh Objective was to examine the predictive contribution of Creative Teaching Attitude and Teacher Self-Efficacy to Creativity-Fostering Teacher Behaviour among Elementary School Teachers. The regression analysis was performed, and the result is presented in Tables 4.41 and 4.42.

To ensure the validity and reliability of the regression model, the underlying assumptions of linear regression are verified through the following steps. The data distribution revealed that the skewness and kurtosis values ranged between -1 and +1, with

no significant outliers. The scatter plot shows a linear relationship between the dependent and independent variables. There was no autocorrelation, as the value of the Durbin-Watson statistic was within the threshold (*DW* = 1.633), confirming independence among observations. Multicollinearity was checked using the Variance Inflation Factor (VIF) scores, and no issues were found (*VIF* < 2). Similarly, the Normal P-P and scatter plots indicate that the residuals are normally distributed and there is no issue of homoscedasticity, as they display a constant variance across all levels of the independent variable. Thus, based on the above checks, the regression assumptions have been adequately met.

Fig 4.29

Standard P-P Plot of the Regression Standardised Residuals

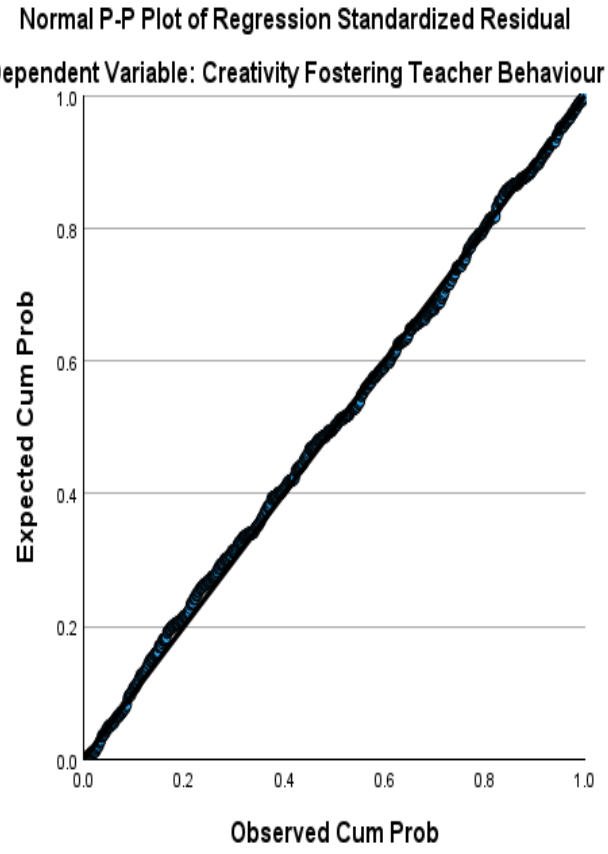


Fig 4.30

Scatter Plot of the Regression Unstandardised Residuals

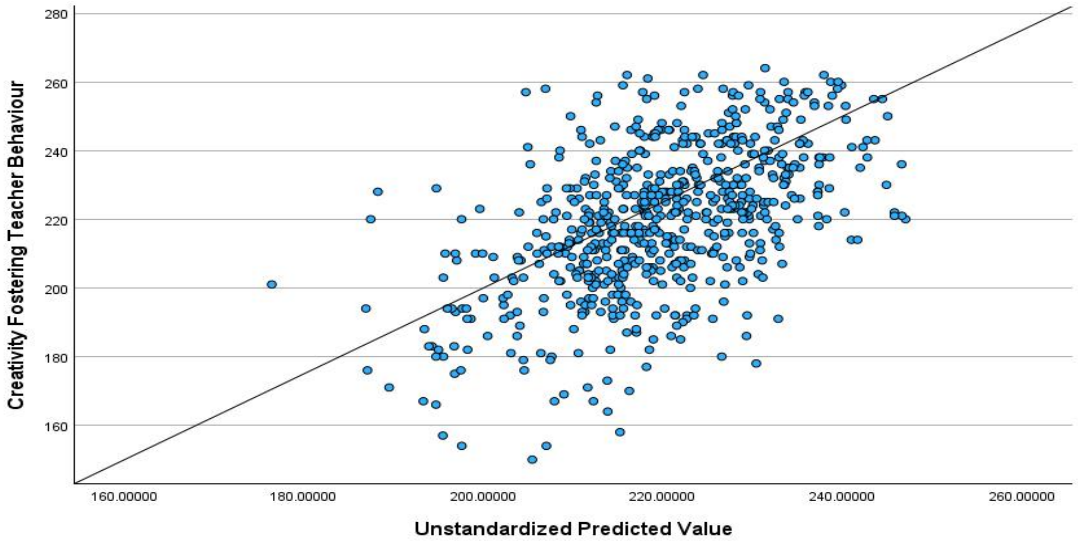


Fig. 4.29 and figure 4.30 presents a visual representation of the pattern formed in the Normal P-P Plot and Scatterplot, indicating that the assumptions of Normality, Linearity, and Homoscedasticity were met. The results of the Regression analysis are presented in Table 4.41.

H_{019}: Creative Teaching Attitude and Teacher Self-Efficacy do not significantly predict Creativity Fostering Teacher Behaviour of Elementary School Teachers.

Table 4.41

Regression Model Summary for Creativity Fostering Teacher Behaviour

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.533[a]	.285	.282	17.82

a. Predictors: (Constant), Teacher Self-Efficacy, Creative Teaching Attitude
b. Dependent Variable: Creativity Fostering Teacher Behaviour

ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	82922.04	2	41461.02	130.44	<.001[b]
Residual	208498.31	656	317.83		
Total	291420.35	658			

a. Dependent Variable: Creativity Fostering Teacher Behaviour

b. Predictors: (Constant), Teacher Self-Efficacy, Creative Teaching Attitude

The dependent variable (Creativity Fostering Teacher Behaviour) was regressed on predicting variables of Creative Teaching Attitude and Teacher Self-Efficacy. The independent variables significantly predicted Creativity Fostering Teacher Behaviour, $F(2, 656) = 130.44$, $p < 0.001$, which indicates that the two factors under study have a significant impact on Creativity Fostering Teacher Behaviour.

Moreover, the $R^2 = .285$ indicates that the model explains 28.5% of the variance in Creativity Fostering Teacher Behaviour. The model fit is fair, with an R-squared value of 0.285 and an adjusted R-squared value of 0.282. The Adjusted R-squared adjusts for model complexity, and since the value is close to the original R-squared, it indicates that the model is neither overfitting nor underfitting. Overall, it depicts that while the model explains a fair to moderate proportion of variance, other factors may be influencing Creativity Fostering Teacher Behaviour.

Table 4.42

Regression Coefficients of Creative Teaching Attitude and Teacher Self-Efficacy on Creativity Fostering Teacher Behaviour

	Coefficient				
Variable	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
1(Constant)	65.477	10.567		6.19	<.001
Creative Teaching Attitude	.412	.060	.246	6.86	<.001
Teacher Self-Efficacy	.436	.041	.386	10.74	

a. Dependent Variable: Creativity Fostering Teacher Behaviour

Coefficients were further assessed to determine the influence of each factor on the criterion variable (Creativity Fostering Teacher Behaviour). The results revealed that Creative Teaching Attitude has a significant and positive impact on Creativity-Fostering Teacher Behaviour (β = 0.246, t = 6.861, p < 0.001). The Beta weighting is 0.246, indicating that for every standard deviation unit change in the independent variable (Creative Teaching Attitude), the dependent variable (Creativity Fostering Teacher Behaviour) will rise by 0.246% of one standard deviation unit. Furthermore, the results indicate that Teacher Self-Efficacy also has a significant and positive impact on Creativity-Fostering Teacher Behaviour (β = 0.386, t = 10.745, p < 0.001). The Beta weighting is 0.386, indicating that for every standard deviation unit change in the independent variable (Teacher Self-Efficacy), the dependent variable (Creativity Fostering Teacher Behaviour) will rise by 0.386% of one standard deviation unit. Consequently, the null hypothesis, which states that "Creative Teaching Attitude and Teacher Self-Efficacy do not significantly predict Creativity Fostering Teacher Behaviour of Elementary School Teachers", is rejected.

The Regression Equation for the Model is:

$$\mathbf{Y = 65.477 + 0.412X_1 + 0.436X_2}$$

Y = Creativity Fostering Teacher Behaviour

X_1=Creative Teaching Attitude

X_2= Teacher Self-Efficacy

The Regression equation can be used to predict creativity-fostering teacher behaviour based on Creative Teaching Attitude and Teacher Self-Efficacy among elementary school teachers. To apply this regression equation, users should obtain teacher scores for Creative Teaching Attitude and Teacher Self-Efficacy by administering the same tool used in this study.

CHAPTER -V

SUMMARY, FINDINGS, DISCUSSIONS AND SUGGESTIONS

5.0 Summary of the Present Study

5.0.1 Introduction

Enhancing creativity and innovation in education has become a priority due to social and economic transformations, as well as the need to enhance global competitiveness (NACCCE, 1999). This necessity has been reflected in India's first education policy of the 21st century, the National Education Policy 2020. The NCF 2005, as well as the policies and commissions prior to it, have primarily discussed creativity in terms of thinking skills, specifically creative thinking (Sharma & Gupta, 2021). However, the National Education Policy (NEP) 2020 has taken a holistic approach towards creativity. The NEP 2020 has explicitly prioritised the development of the creative potential of each individual. It focuses on developing children's critical thinking and creative skills to adapt to the global ecosystem. This approach aligns with the modern educational perspective on creativity, which views creativity as a potential that every child possesses and a skill that can be developed or nurtured (Lin, 2011). However, past researches indicate that creativity in the classroom is frequently not fostered, despite teachers claiming to appreciate it (Beghetto, 2007; Scott, 2009). Students' creative actions are frequently disapproved of and regarded as nonconformist. This divergence between the acknowledged value of creativity and its scarcity in educational settings is referred to as the "creativity gap" by Makel (2009). Thus, to meet the educational goals of the NEP 2020 and the challenges of the twenty-first century, we need teachers who not only transmit knowledge but also possess the pedagogical skills to foster creativity and innovation in the classroom. Exploring teachers' behaviour that fosters creativity and the influence of teacher attitude towards creative teaching and their self-efficacy is therefore crucial, as these are the fundamental elements that would determine how creativity is fostered in classroom settings.

5.0.2 Significance of the Study

Nurturing creativity requires an environment that is both encouraging and rewarding for creative actions. While an individual may possess all of the internal resources necessary to think creatively, without an environment that fosters and rewards creative risk-taking, the individual's inherent creativity may never be realised (Sternberg, 2006). Despite many teachers' noble intentions to encourage children's creative potential, they differ in the degree to which they support, enhance, or foster creativity in the classroom (Flieth, 2000). Teachers' attitudes reflect their beliefs and can significantly impact their practice. It is essential to understand teachers' beliefs about creativity and their perspective on creative practice, as research has shown that teachers' views on creativity are correlated with the frequency at which creativity is emphasised in the classroom (Craft, 2001).

Elementary Education is the foundation, and it is the most important stage in a child's development, marking a transition from early childhood education to secondary school. Awareness of the Importance of Elementary Education has led the Government of India to provide free, compulsory, and universal primary education to all children in the age group between six and fourteen years, as mandated by Article 45 of the Indian Constitution, which is included in the Directive Principles of State Policy. The 86th Constitutional amendment of 2002, which included Article 21A in the Indian Constitution, made education a Fundamental Right.

The basic aim of elementary education is to create, establish and provide all children with meaningful opportunities that support their overall growth—intellectually, emotionally, and physically. This is the formative period in the learner's life where major developmental activities take place, and also a stage where creativity can be well nurtured. These aspects of primary education require specific parameters for teachers directly involved in them. Teachers at this stage of education need not necessarily be subject specialists; instead, they require specific skill sets to nurture the all-round development of the learner, including their creative capacities.

However, it is acknowledged that the Indian education system faces a "creativity crisis" (Bakhshi, 2020). The National Education Policy 2020 addresses this by prioritising the development of learners' creativity and critical thinking to drive innovation. This need is especially pressing in Nagaland, where the National Achievement Survey (2017) consistently shows lower-than-average performance across subjects, with difficulties in mathematics and science emerging early and worsening over time. The India Innovation Index (2020) further reveals persistent underperformance and low innovation capacity. While systemic bottlenecks contribute to these challenges, they also underscore the vital role of education in nurturing creative potential. Fostering creativity and innovation in classrooms requires sustained effort, with teachers playing a pivotal role by actively encouraging and recognising students' creative expressions.

While the creativity of students has been the focus of extensive research, the creativity-fostering behaviours of teachers remain underexplored. Teacher attitudes toward creative teaching can significantly influence their practices, and beliefs in their abilities (self-efficacy) are important predictors of their teaching behaviour (Bandura, 1997). This study seeks to fill this critical gap by investigating the creativity-fostering behaviours of elementary school teachers in Nagaland. It will also explore how these behaviours are interconnected with teachers' attitudes toward creative teaching and their self-efficacy. The findings will provide policymakers, educators, and educational planners with valuable insights, highlighting the importance of fostering a creativity-oriented teaching environment.

5.0.3 Statement of the Problem

The study has been titled: ***"Creativity Fostering Teacher Behaviour in Relation to Creative Teaching Attitude and Teacher Self-Efficacy of Elementary School Teachers in Nagaland".***

5.0.4 Variables Included in the Study

Dependent Variable - Creativity Fostering Teacher Behaviour

Independent Variables - Creative Teaching Attitude and Teacher Self-Efficacy.

Demographic Variables - Gender (Male and Female), Type of School Management (Government and Private), Professional Qualification (Trained and Untrained), and Teaching Experience (0-10 years, 11-20 years, > 20 years).

5.0.5 Overview of the Review of Related Literature

A review of the empirical research on past studies reveals that creativity-fostering teacher behaviour has been examined along with several other variables. Creativity-fostering teacher behaviour has been examined in relation to teacher personality traits. Studies by Lee and Kemple (2014), Avadhanam and Chand (2016), Ayyildiz and Yilmaz (2021), and Sahin (2021) have reported the influence of personality traits on creativity-fostering teacher behaviour. Teacher personality was also a predictor of teachers' creativity-fostering behaviours **(**Chan & Yuen, 2014). The studies support the claim that teachers who are open to experience show significantly higher levels of creativity-supporting behaviour in the classroom. Students' creativity has also been linked to creativity-fostering teacher behaviour in the classroom, as studies by Forrester and Hui (2007) and Sahin (2021) found that student creativity is positively correlated with creativity-fostering teacher behaviour. Teacher beliefs about creativity, as reported by Hong and Hartzell (2009) and Chan and Yuen (2014), were found to be a predictor of teacher creativity-fostering behaviour.

Teachers' creative self-efficacy and teacher efficacy have also been examined, and studies by Cayirdag (2017), Adeeb et al. (2019), Liu and Wang (2019), and Huang (2022) have all indicated a positive relationship. However, creative self-efficacy predicts teacher creativity-fostering behaviour better than teacher self-efficacy (Cayirdag, 2017). Variables such as student engagement (Kuril et al., 2021), student self-esteem (Yadav & Rekharani, 2021), student self-efficacy and intrinsic goal orientation (Hong & Hartzell, 2009; Maun et al., 2023; Setiamurti et al., 2023) were all found to be positively correlated with teacher creativity fostering behaviour. The research findings from de Bruin and Harris (2017), Huang (2022), and Da'as (2023) studies indicate that school and principal leadership are related to creativity-fostering teacher behaviour and underscore the importance of a supportive ecological approach to creativity in education.

Teacher motivation was also an essential variable in influencing teacher creativity-fostering behaviour. Teachers with high intrinsic motivation for creativity tend to promote student creativity through their teaching practices (Hong & Hartzell, 2009). Furthermore, intrinsic motivation has been identified as the most significant predictor of innovative behaviour among teachers (Avadhanam & Chand, 2016). A recent study by Dahiya and Malik (2024) has found a positive correlation with the happiness index. The study underscores the critical role that teachers' psychological well-being plays in impacting their classroom management behaviour.

Levels of creativity fostering teacher behaviour have been found to differ across studies. Konstantinidou and Zisi's (2017) study observed low levels of creativity-fostering teacher behaviour and suggested that the factors behind this could be a lack of academic education and professional development of teachers in areas of creativity, as well as a rigid curriculum that limits teachers' ability to explore ways of teaching for creativity. In contrast, studies by Adeeb et al. (2019) and Taat and Suki (2021) found creativity-nurturing behaviour among teachers to be high. They asserted that teachers with higher creativity-nurturing behaviour were more prepared for 21st-century classroom management.

Teacher creativity-fostering behaviour has also been examined in relation to several demographic variables. Concerning teaching experience and the creativity-supporting behaviour of teachers, there have been differing results. A moderate correlation was reported between years of teaching experience and the overall creativity-fostering behaviour of teachers by Hondzel (2013). A negative relationship exists between teaching experience and creativity-fostering behaviour, with more experienced teachers demonstrating less creativity-supporting behaviour in Cayirdag's (2017) study. Moreover, no relation to teaching experience as found by Forrester and Hui (2007), Avadhanam and Chand (2016), and Tok (2022). Differing results were also seen regarding gender. Adeeb et al.'s (2019) study indicated significant gender differences, with females showing more favourable behaviour towards fostering children's creativity. However, no significant difference was observed regarding gender in studies conducted by Forrester and Hui

(2007), Hondzel (2013), Avadhanam and Chand (2016), and Tok (2022). Avadhanam and Chand's (2016) study reported teacher qualification in the TET (Teacher Eligibility Test) as a significant predictor of innovative teacher behaviour. However, studies by Forrester and Hui (2007), Hondzel (2013), and Tok (2022) did not find teacher qualification, age, and class size to be significantly related to teacher creativity-fostering behaviour.

Creative teaching attitude has also been examined by several researchers with Academic Achievement (Schacter et al., 2006), Teaching Competency (Niwas, 2018; Dar & Rather, 2024), Teacher Emotional Intelligence (Gaur, 2019), Teacher Effectiveness (Kaur & Sankhian., 2020), and Principal Leadership (Chen & Yuan, 2021). A review of the studies reveals that, although teachers' attitudes towards creativity were favourable (Gupta, 2018), a lack of understanding and experience regarding creativity in education was one of the most frequently stated inadequacies among pre-service teachers (Akturk & Celik, 2020; Alkus & Olgan, 2014). Hurdles to actual creative teaching in class also include an overcrowded curriculum, insufficient teaching time, exam pressures, and an unsupportive social and cultural setting (Wang & Kokotsaki, 2018). Additionally, creative teaching is a complex task that requires adequate support for teachers to engage in creative practices (Hosseini, 2014; Huang et al., 2018).

Differing results have been reported regarding gender and attitude towards creative teaching, as studies by Kaur (2015), Katoch (2017), and Gaur (2019) found no significant difference in the creative teaching attitude between male and female teachers. In contrast, significant differences were observed by Gupta and Jan (2018), Niwas (2018), Adeel et al. (2019), and Mahato and Sen (2023) in their studies, where female teachers have shown a more positive attitude towards creative teaching. Differences in attitude towards creative teaching were also observed based on variations in their pedagogical backgrounds as research findings of Kaur (2015), Niwas (2018), Gupta and Jan (2018) showed teachers from the science stream showing a more positive attitude towards creative teaching, in contrast to Kaur's (2016) findings, where arts teachers showed a more favourable attitude towards creative teaching. Furthermore, creative teaching attitude was also studied with other demographic variables such as teaching experience (Kettler et al., 2018; Gaur, 2019),

locality of the school (Kaur, 2015; Huang et al., 2018; Gaur, 2019; Mahato & Sen, 2023) and type of school (Katoch, 2017; Gaur, 2019). However, there has been no consensus among these studies regarding the impact of teaching experience, school locality, and school type on creative teaching attitudes.

Teacher self-efficacy has also been investigated in relation to the stages of teachers' teaching careers (Swan et al., 2011; Pfitzner-Eden, 2016; Lazarides et al., 2020; Apat & Swain, 2021). However, the findings were inconclusive, as teacher self-efficacy changes were not consistent across the different stages of their careers. Regarding teacher self-efficacy and gender, studies by Amanulla and Aruna (2014), Sethi and Mittal (2015), Menon and Sobha (2017), Pooja (2019), and Poulou et al. (2019) reported that male and female teachers exhibited comparable levels of self-efficacy, with no statistically significant differences observed. In contrast, findings from Beatty (2002), Ford (2012), and Jocelyn and Sammanasu (2016) indicated that female educators tend to demonstrate higher self-efficacy than their male counterparts. Concerning teacher self-efficacy and the type of school management and locality of the school, studies by Beatty (2002), Amanulla and Aruna (2014), Menon and Sobha (2017) and Pooja (2019) had differing conclusions. A difference in teacher self-efficacy regarding years of teaching experience was also observed (Menon & Sobha, 2017). Ford (2012) found that older and more experienced teachers had higher self-efficacy. In contrast, Punia and Kaushik (2012) and Amanulla and Aruna (2014) found no significant differences in efficacy beliefs with years of teaching experience.

5.0.6 Research Gap

It is apparent from the reviews of previous studies that the variables of creativity-fostering teacher behaviour, creative teaching attitude, and teacher self-efficacy have been explored along with several other variables. However, the relationship between these three variables has not been investigated so far. Studies measuring creativity-fostering teacher behaviour are relatively recent, as most studies were conducted after Soh's Creativity Fostering Teacher Index was constructed in 2000. Although few studies have been conducted in India examining teacher behaviour in the classroom, to the investigator's

knowledge, no study has been conducted examining teacher creativity-fostering behaviour in Indian classrooms. Given the important role teachers play in fostering students' creativity in classroom settings, it is imperative to examine teacher creativity-fostering behaviour, as "teachers' actions and reactions" (Soh, 2000, p.20) can either encourage or stifle student creativity.

Despite studies examining teachers' attitudes towards creative teaching in India, the majority of these studies focused on pre-service teachers (Kaur, 2016; Niwas, 2018; Gupta & Jan, 2018; Mahato & Sen, 2023; Dar & Rather, 2024), and secondary school teachers (Katoch, 2017; Gupta, 2018; Kaur & Sankhian, 2020), with only very few studies on elementary school teachers (Gaur, 2019). Thus, there is a dearth of research on overall elementary school teachers' attitudes toward creative teaching in general and particularly in Nagaland

Additionally, it was evident from the review of literature that studies on creative teaching attitude in India were conducted using the 'Attitude Scale of Creative Teaching' developed by R.P. Shukla (2012), which is based on E.P. Torrance's (1963) Ideal Pupil checklist, which contains sixty-two traits based on studies of creative people. However, certain aspects of creative teaching, such as teachers' attitudes toward pedagogy, personal qualities, intrinsic motivations, and classroom ethos, as mentioned by several creativity researchers (Palaniappan, 2004; Cremin et al., 2009; Bramwell et al., 2011), were not included in the scale. Therefore, it is imperative to examine teachers' attitudes toward creative teaching, taking into account all the factors deemed essential for measuring creative teaching.

Furthermore, the literature review indicates that prior research on creativity-fostering teacher behaviour predominantly employed qualitative methodologies, including observational techniques and mixed-method designs, often involving relatively small sample sizes (Forrester & Hui, 2007; Olawale, 2010; Hondzel, 2013; Konstandinidou & Zisi, 2017; Tok, 2022). As such, pure quantitative studies using inferential statistics are scarce. Research employing descriptive survey methods on larger sample sizes is needed

to provide a clearer picture of the status of elementary school teacher creativity-fostering behaviour, which also leads to the generalisation of the results.

A substantial body of research has explored teacher self-efficacy, and empirical evidence consistently underscores its significance as a predictor of diverse educational outcomes. However, research exploring the relationship between teacher self-efficacy and creativity-fostering teacher behaviour remains limited, with most studies conducted in international contexts (Nese, 2014; Cayirdag, 2017). This gap underscores the need for further investigation, particularly within the regional framework of Nagaland and the broader Indian educational landscape.

Although the variables of creativity-fostering teacher behaviour, creative teaching attitude, and teacher self-efficacy have been studied in relation to various demographic variables, including gender, type of school management, and teaching experience, no conclusive inferences could be drawn. Furthermore, few studies have examined the professional qualifications of teachers (trained versus untrained) in relation to creativity-fostering teacher behaviour, creative teaching attitudes, and teacher self-efficacy. There is a lack of sufficient research to determine the impact of teacher professional qualification on their creativity-fostering behaviour, attitude towards creative teaching, and self-efficacy, leaving room for further investigation.

Earlier, creativity was regarded as a thinking skill; consequently, most creativity research in India was focused on measuring creativity levels. However, NEP 2020 adopts a holistic approach to creativity (Sharma & Gupta, 2021). It views creativity as a potential that every child possesses and a skill that should be nurtured in schools. This calls for a change in how creativity is approached in education, for which the teacher's role is indispensable. The researcher has observed a dearth of empirical research measuring teachers' attitudes, beliefs, and behaviour regarding the fostering of creativity in classrooms, and the present study is a humble attempt to address this gap.

Attitudes are widely acknowledged to influence behaviour, whereas self-efficacy, being intrinsically self-referential, is recognised as a significant predictor of behavioural outcomes (Bandura, 1997). Despite their theoretical significance, limited research has

examined the interplay between these constructs in the context of teaching. The current gap in the literature provides a basis for examining the relationships among creativity-fostering teacher behaviour, creative teaching attitude, and teacher self-efficacy. Additionally, the present study aims to assess the current status of these variables among elementary school teachers in Nagaland, thereby generating contextually relevant insights for policymakers, teacher educators, and educational researchers.

5.0.7 Objectives of the Study

The objectives of the study are stated as follows:

1. To assess the levels and component-wise distribution of Creativity-Fostering Teacher Behaviour, Creative Teaching Attitude, and Teacher Self-Efficacy among elementary school teachers.
2. To compare mean scores of Creativity-Fostering Teacher Behaviour in relation to Gender, Type of School Management, Professional Qualification, and Teaching Experience among elementary school teachers.
3. To compare mean scores of Creative Teaching Attitude in relation to Gender, Type of School Management, Professional Qualification, and Teaching Experience among elementary school teachers.
4. To compare mean scores of Teacher Self-Efficacy in relation to Gender, Type of School Management, Professional Qualification, and Teaching Experience among elementary school teachers.
5. To examine the interaction effects of Gender, Type of School Management, Professional Qualification, and Teaching Experience on Creativity-Fostering Teacher Behaviour among elementary school teachers.
6. To examine the interaction effects of Gender, Type of School Management, Professional Qualification, and Teaching Experience on Creative Teaching Attitude among elementary school teachers.
7. To examine the interaction effects of Gender, Type of School Management, Professional Qualification, and Teaching Experience on Teacher Self-Efficacy among elementary school teachers.

8. To determine the relationship between Creativity-Fostering Teacher Behaviour and Creative Teaching Attitude among elementary school teachers.
9. To determine the relationship between Creativity-Fostering Teacher Behaviour and Teacher Self-Efficacy among elementary school teachers.
10. To determine the relationship between Creative Teaching Attitude and Teacher Self-Efficacy among elementary school teachers.
11. To examine the predictive contribution of Creative Teaching Attitude and Teacher Self-Efficacy to Creativity-Fostering Teacher Behaviour among elementary school teachers.

5.0.8 Hypotheses of the study

H_{01}: There is no significant difference in mean scores of Creativity Fostering Teacher Behaviour between Male and Female Elementary School Teachers.

H_{02}: There is no significant difference in mean scores of Creativity Fostering Teacher Behaviour between Government and Private Elementary School Teachers.

H_{03}: There is no significant difference in mean scores of Creativity Fostering Teacher Behaviour between Trained and Untrained Elementary School Teachers.

H_{04}: There is no significant difference in mean scores of Creativity Fostering Teacher Behaviour among Elementary School Teachers with 0-10 years, 11-20 years, and more than 20 years of teaching experience.

H_{05}: There is no significant difference in mean scores of Creative Teaching Attitude between Male and Female Elementary School Teachers.

H_{06}: There is no significant difference in mean scores of Creative Teaching Attitude between Government and Private Elementary School Teachers.

H_{07}: There is no significant difference in mean scores of Creative Teaching Attitude between Trained and Untrained Elementary School Teachers.

H_{08}: There is no significant difference in mean scores of Creative Teaching Attitude among Elementary School Teachers with 0-10 years, 11-20 years, and more than 20 years of teaching experience.

H_{09}: There is no significant difference in mean scores of Teacher Self-Efficacy between Male and Female Elementary School Teachers.

H_{010}: There is no significant difference in mean scores of Teacher Self-Efficacy between Government and Private Elementary School Teachers.

H_{011}: There is no significant difference in mean scores of Teacher Self-Efficacy between Trained and Untrained Teachers.

H_{012}: There is no significant difference in mean scores of Teacher Self-Efficacy among Elementary School Teachers with 0-10 years, 11-20 years, and more than 20 years of teaching experience.

H_{013}: There is no significant interaction effect of Gender, Type of School Management, Professional Qualification, and Teaching Experience on Creativity Fostering Teacher Behaviour of Elementary School Teachers.

H_{014}: There is no significant interaction effect of Gender, Type of School Management, Professional Qualification, and Teaching Experience on Creative Teaching Attitude of Elementary School Teachers.

H_{015}: There is no significant interaction effect of Gender, Type of School Management, Professional Qualification, and Teaching Experience on Teacher Self-Efficacy of Elementary School Teachers.

H_{016}: There is no significant relationship between Creativity Fostering Teacher Behaviour and Creative Teaching Attitude of Elementary School Teachers.

H_{017}: There is no significant relationship between Creativity Fostering Teacher Behaviour and Teacher Self-Efficacy of Elementary School Teachers.

H_{018}: There is no significant relationship between Creative Teaching Attitude and Teacher Self-Efficacy of Elementary School Teachers.

H_{019}: Creative Teaching Attitude and Teacher Self-Efficacy do not significantly predict Creativity Fostering Teacher Behaviour of Elementary School Teachers.

5.0.9 Operational Definitions of the Terms Used

Creativity-Fostering Teacher Behaviour: Creativity-Fostering Teacher Behaviour refers to how teachers engage with their students' ideas, perspectives, and suggestions

throughout lessons and in their regular interactions, which can impact students' creativity (Soh, 2000). It includes nine dimensions of creativity-fostering teacher behaviour, namely Independence, Integration, Motivation, Judgment, Flexibility, Evaluation, Question, Opportunities, and Frustration, as measured by the Creativity Fostering Teacher Behaviour Index (Soh, 2000).

Creative Teaching Attitude: Creative teaching attitude refers to a teacher's disposition to respond favourably or unfavourably towards utilising creative instructional methods and teaching solutions to make learning more engaging and effective. It encompasses three dimensions: pedagogy, personal qualities, and classroom ethos, as assessed by the Teachers' Attitude Scale of Creative Teaching.

Teacher Self-Efficacy: Teacher self-efficacy refers to an individual teacher's belief in their ability to execute specific tasks and achieve intended educational outcomes effectively. This includes self-efficacy in six dimensions: Instructional efficacy, Classroom Management, Inclusive Practices, Ethics and Values, Adapt to Changes and Challenges, and Cooperating with Colleagues and Parents, as measured by the Teacher Self-Efficacy Scale.

Elementary School Teachers: Elementary School Teachers refer to the teachers teaching in classes VI to VIII in both government and private schools of Nagaland under the Nagaland Board of School Education (NBSE).

Gender: Gender refers to Male and Female teachers teaching in classes VI to VIII in both government and private schools in Nagaland, affiliated with the Nagaland Board of School Education (NBSE).

Type of School Management: Type of School Management refers to schools with classes VI to VIII that are managed by either the Government or Private bodies in Nagaland, affiliated with the Nagaland Board of School Education (NBSE).

Professional Qualification: Professional Qualification refers to the teacher's training status, categorised as either Trained or Untrained, among those teaching classes VI to VIII

in government and private schools in Nagaland affiliated with the Nagaland Board of School Education (NBSE).

Teaching experience: Teaching experience refers to the duration the teachers have been teaching in classes VI to VIII in both government and private schools in Nagaland, affiliated with the Nagaland Board of School Education (NBSE), and is categorised as 0-10 years, 11-20 years, and above 20 years of teaching experience.

5.0.10 Delimitations of the Study

1. The study is delimited to elementary school teachers teaching classes VI to VIII.
2. The study is delimited to those schools which are affiliated with the Nagaland Board of School Education (NBSE)

5.0.11 Research Methodology

The present study employed a Descriptive Survey Research Method.

5.0.12 Population of the Study

In this study, the population consists of all elementary school teachers who teach classes VI to VIII in both government and private schools in Nagaland, affiliated with the Nagaland Board of School Education (NBSE). The population size is 10,676 (Number of teachers by classes taught at VI-VIII level, DoSE Report, 2023).

5.0.13 Sampling Procedure

A multistage random sampling technique, as well as a stratified random sampling technique, was employed in the study.

5.0.14 Sample of the Study

The sample for the study comprised 659 elementary school teachers who teach classes VI to VIII in both government and private schools in six districts (Chumoukedima, Dimapur, Kiphire, Kohima, Mokokchung, Mon) of Nagaland.

5.0.15 Tools used for the Study

The following tools were used in the present study:

i) Creativity Fostering Teacher Behaviour Index (CFTIndex) by Soh (2000). Revalidated by the investigator.

ii) Attitude Scale of Creative Teaching (ASCT) developed and standardised by the investigator.

iii) Teacher Self-Efficacy Scale (TSES) developed and standardised by the investigator.

5.0.16 Statistical Techniques Used

Descriptive statistics such as Mean, Median, SD, Skewness, Kurtosis and Inferential statistics such as independent t-test, Pearson Product-Moment Correlation, One-way and Factorial ANOVA, and Regression Analysis were used for the present study.

5.1 Major Findings of the Study

The study's key findings are organised themewise in accordance with the research objectives, which are summarised as follows:

Major Findings of Objective 1

The First Objective of the present study was "To assess the levels and component-wise distribution of Creativity-Fostering Teacher Behaviour, Creative Teaching Attitude, and Teacher Self-Efficacy among elementary school teachers". The key findings are summarised as follows:

i) Creativity Fostering Teacher Behaviour

Elementary school teachers in Nagaland exhibit a moderate level of Creativity Fostering Teacher Behaviour. The Creativity-Fostering Teacher Behaviour was assessed based on nine dimensions: independence, integration, motivation, judgment, flexibility, evaluation, questioning, opportunity, and frustration. Although there are variations in the level, the results suggest that most elementary school teachers (44%) in Nagaland exhibit a moderate level of creativity-fostering teacher behaviour.

Dimension-wise difference based on Gender

a. Overall, Female Teachers with a mean score of 220.47 have higher creativity-fostering behaviour as compared to their Male counterparts, whose mean score is 218.99.
b. Male Teachers performed better in the Question dimension, which relates to taking students' questions and suggestions seriously by the teacher. In comparison, Female Teachers performed better in the Frustration dimension, which relates to helping students cope with failures and frustrations and encouraging them to try new things.
c. It was observed that both Male and Female Elementary School Teachers scored lowest in the Independence dimension, which relates to teachers encouraging their students to learn independently.

Dimension-wise difference based on the Type of School Management

a. Overall, Private Teachers with a mean score of 221.89 performed better as compared to their Government counterparts, whose mean score is 217.66.
b. Based on the Type of School Management, Government Teachers' highest mean score was observed in the Question dimension, which includes following on students' suggestions, so that they know that they are taken seriously by the teacher. In contrast, Private Teachers' highest mean score was in the Frustration dimension, where teachers can ensure that students dealing with frustration and failures can come to them for emotional support.
c. Lowest Creativity Fostering Teacher Behaviour for both Government and Private Teachers was observed in the Independence dimension, which relates to teachers teaching the basics and leaving room for the students to learn individually.

Dimension-wise difference based on Professional Qualification

a. The overall mean score for Trained teachers was 219.81, compared to 219.78 for Untrained teachers, indicating essentially no difference in creativity-fostering teacher behaviour based on Professional Qualification.

b. Trained Teachers Creativity Fostering Teacher Behaviour was higher in the Question dimensions. Whereas, Untrained Teachers performed better in the Frustration dimension.
c. Both Trained and Untrained Teachers scored lowest in the Independence dimension, which indicates that teachers often do not encourage students to learn independently.

Dimension-wise difference based on Teaching Experience

a. Teachers with 0-10 years teaching experience (M = 221.01) performed better as compared to teachers with 11-20 years (M =219.24) and teachers with more than 20 years teaching experience (M = 209.85).
b. Teachers having 0-10 years of teaching experience had the highest mean score in the Frustration Dimension and the lowest mean score in the Independence Dimension.
c. Teachers with 11-20 years of teaching experience had the highest mean score in the Question Dimension and the lowest in the Independence Dimension.
d. Highly experienced (above 20 years) teachers had the highest mean score in the Question Dimension and the lowest mean score in the Independence Dimension.
e. Though the highest mean scores differ among the groups, the lowest mean score was observed in the Independence dimension (teachers encouraging their students to learn independently) for all three groups of teachers.

ii) Creative Teaching Attitude

Elementary School Teachers in Nagaland have a Moderate level of Creative Teaching Attitude. Although there are variations in the level, the results indicate that most elementary school teachers (37%) in Nagaland possess a moderate level of Creative Teaching Attitude. Three dimensions —namely, Pedagogy, Personal Qualities, and Classroom Ethos— were considered in the study to assess teachers' attitudes toward creative teaching.

Dimension-wise difference based on Gender

a. The overall mean score for Male teachers was 183.14, and for Female teachers, it was 183.03, indicating no meaningful difference in creative teaching attitude based on gender.
b. Male Teachers' highest mean score was in Classroom Ethos, and the lowest mean score was in Pedagogy. This indicates that Male Teachers Tend to have a more favourable attitude towards creating a classroom climate that promotes creativity, but a less favourable attitude towards employing diverse teaching approaches and strategies that foster students' creativity.
c. Female teachers had a more favourable attitude in Classroom Ethos but a less favourable attitude in Pedagogy (attitude towards using diverse teaching approaches and strategies that foster students' creativity) and Personal Qualities (attitude of the teacher towards personalising teaching, the personal values and motivation that shaped the teacher's creative teaching).
d. Dimension-wise, both Male and Female Teachers scored highest in Classroom Ethos.

Dimension-wise difference based on the Type of School Management

a. Overall, the Private teachers (M = 184.27) had a more favourable attitude towards creative teaching as compared to their counterparts, the Government teachers (M = 181.86).
b. Government Teachers had a more favourable attitude towards Classroom Ethos but a less favourable attitude towards employing a creative pedagogy.
c. Private Teachers had a more favourable attitude in creating a classroom ethos that is conducive to fostering creativity, but a less favourable attitude in the Pedagogy dimension.
d. Dimension-wise, not many differences were observed in the attitude of Teachers based on the type of School Management, as both Government and Private Teachers scored highest in Classroom Ethos and lowest in Pedagogy.

Dimension-wise difference based on Professional Qualification

a. Overall, the Trained teachers (M = 183.33) had a slightly more favourable attitude towards creative teaching as compared to their counterparts, the Untrained teachers (M = 182.59).
b. Trained Teachers' highest mean score was in Classroom Ethos, and the lowest mean score was in Pedagogy.
c. Untrained Teachers' highest mean score was in Classroom Ethos, and the lowest mean score was in Pedagogy.
d. Dimension-wise, both Trained and Untrained Teachers scored highest in Classroom Ethos and lowest in Pedagogy. This suggests that both Trained and Untrained Teachers have a favourable attitude towards creating a classroom climate that fosters creativity. However, they exhibit a less favourable attitude towards employing diverse teaching approaches and strategies that promote students' creativity in the classroom.

Dimension-wise difference based on Teaching Experience

a. Teachers with 0-10 years teaching experience (M = 184.63) have the most favourable attitude as compared to teachers with 11-20 years (M = 182.14) and teachers with more than 20 years teaching experience (M = 177.73).
b. Teachers having 0-10 years of teaching experience had the most favourable attitude towards Classroom Ethos but the least favourable attitude towards Pedagogy.
c. Teachers with 11-20 years of teaching experience had the most favourable attitude towards Classroom Ethos and scored the least in the Personal Qualities dimension.
d. Highly experienced (Above 20 years) teachers had the most favourable attitude towards Classroom Ethos, but the least favourable attitude towards Pedagogy.
e. Though the lowest mean scores differ among the groups, the highest mean score was observed in the dimension of Classroom Ethos for all three groups of Teachers.

iii) Teacher Self-Efficacy

Elementary School Teachers have a Moderate level of Teacher Self-Efficacy. Although there are variations in the level, the results indicate that most elementary school teachers (40%) in Nagaland reported a moderate level of Teacher Self-Efficacy.

The dimensions included in the present study to assess Teacher Self-Efficacy are: instructional efficacy, self-efficacy in classroom management, self-efficacy in inclusive practices, self-efficacy in fostering ethics and values, self-efficacy to adapt to changes and challenges, and self-efficacy in cooperating with colleagues and parents.

Dimension-wise difference based on Gender

a. Overall, Male teachers with a mean score of 181.46 have slightly higher self-efficacy as compared to their Female counterparts, whose mean score is 180.48.
b. Male Teachers had higher Self-Efficacy in the Instructional Efficacy dimension and the lowest Self-Efficacy in the fostering Ethics and Values dimension.
c. Female teachers had higher Self-Efficacy in the Instructional Efficacy dimension and the lowest Self-Efficacy in the Fostering Ethics and Values dimension.
d. Dimension-wise, the highest Teacher Self-Efficacy for both Male and Female Elementary School Teachers was in Instructional Efficacy, and the lowest was in the Ethics and Values dimension. This indicates that teachers are confident in their ability to use instructional strategies successfully with students of varying learning abilities and achieve the learning objectives. However, they are less confident in their ability to foster the social and ethical capacities and dispositions of the students embedded in the Indian ethos.

Dimension-wise difference based on the Type of School Management

a. Overall, the Private teachers (M =183.48) had higher self-efficacy as compared to their counterparts, the Government teachers (M =178.30).
b. Government Teachers' highest mean score was in the Instructional Efficacy dimension, and the lowest mean score was in the Ethics and Values dimension.

c. Private Teachers' highest mean score was in Instructional Efficacy, and the lowest mean score was in the Ethics and Values dimension.
d. Thus, for both Government and Private Elementary School Teachers, the highest Self-Efficacy was in the dimension of Instructional Efficacy, and the lowest Self-Efficacy was in fostering Ethics and Values.
e. Private Teachers scored more than their counterparts, Government Teachers, in all the dimensions of Teacher Self-Efficacy.

Dimension-wise difference based on Professional Qualification

a. Overall, the Untrained teachers (M = 181.76) had slightly higher self-efficacy as compared to their counterparts, the Trained teachers (M = 180.49).
b. Trained Teachers' highest mean score was in Instructional Efficacy, and the lowest mean score was in the Ethics and Values dimension.
c. Private Teachers' highest mean score was in Instructional Efficacy, and the lowest mean score was in the Ethics and Values dimension.
d. Dimension-wise, both Trained and Untrained Teachers scored highest in Instructional Efficacy and lowest in Ethics and Values.

Dimension-wise difference based on Teaching Experience

a. Overall, teachers with 0-10 years (M=181.28) and 11-20 years (M=*181.30*) teaching experience had higher levels of self-efficacy as compared to teachers with more than 20 years (M=177.93) teaching experience.
b. Teachers having 0-10 years of teaching experience had the highest mean score in Instructional Efficacy, and the lowest mean score was in Ethics and Values.
c. Teachers with 11-20 years of teaching experience had the highest mean score in Instructional Efficacy, and the lowest mean score was in Ethics and Values.
d. Highly experienced (Above 20 years) teachers had the highest mean score in Instructional Efficacy, and the lowest mean score was in Ethics and Values.

e. For all three groups of teachers, the highest Self-Efficacy was seen in the dimension of Instructional Efficacy, and the lowest Self-Efficacy was in the Ethics and Values dimension.

Major Findings of Objective 2:

The Second Objective of the study was to compare the mean scores of Creativity Fostering Teacher Behaviour in relation to Gender (Male and Female), Type of School Management (Government and Private), Professional Qualification (Trained and Untrained) and Teaching Experience (0-10 years, 11-20 years, above 20 years) of Elementary School Teachers. The main findings of this Objective are as follows:

a. No Significant difference was found between Male and Female Elementary School Teachers on Creativity-Fostering Teacher Behaviour. It implies that gender does not play a significant role in the Creativity Fostering Teacher Behaviour.
b. A significant difference was observed between Government and Private Elementary School Teachers:

   Teachers from Private Elementary Schools exhibit higher levels of Creativity-Fostering Teacher Behaviour compared to those from Government elementary schools.

   However, the effect size was small (*Cohen's d* = 0.202), indicating that the difference between groups had limited significance.
c. No Significant difference was found between Trained and Untrained Elementary School Teachers on Creativity-Fostering Teacher Behaviour. Both Trained and Untrained Elementary School Teachers demonstrate Creativity-Fostering Behaviour to the same extent.
d. A significant difference was observed in the Creativity Fostering Teacher Behaviour concerning Teaching Experience. The effect size, however, is small (eta squared $\eta^2 = .031$)

Highest Creativity Fostering Teacher Behaviour was observed in teachers from the 0-10 years group, and the lowest was in the Highly Experienced group, comprising teachers with over 20 years of teaching experience.

It was observed that Teacher Creativity Fostering Behaviour gradually declines with increasing years of Teaching Experience.

Major Findings of Objective 3:

The Third Objective of the study was to compare the mean scores of Creative Teaching Attitude between Gender (Male and Female), Type of School Management (Government and Private), Professional Qualification (Trained and Untrained) and Teaching Experience (0-10 years, 11-20 years, and above 20 years) of Elementary School Teachers. The main findings of this study are as follows:

a. No significant difference was found between Male and Female elementary school teachers in terms of Creative Teaching Attitude. It may, therefore, be said that both Male and Female Elementary School Teachers have a similar attitude towards Creative Teaching.

b. A significant difference was observed between Government and Private elementary school teachers in terms of Creative Teaching Attitude.

   Teachers from Private Elementary Schools had a more favourable attitude towards Creative Teaching than Teachers from Government Elementary Schools.

   However, the effect size was small (*Cohen's d* = 0.203), indicating that the difference between groups had limited significance.

c. No Significant difference was found between Trained and Untrained Elementary School Teachers on Creative Teaching Attitude. Both Trained and Untrained Elementary School Teachers had similar Attitudes towards Creative Teaching.

d. A significant difference was observed in the Creative Teaching Attitude concerning Teaching Experience. However, the effect size, calculated using eta squared (η^2), was .030, which is small.

   The most favourable Attitude towards Creative Teaching was observed in teachers with 0-10 years of Teaching Experience.

Attitudes towards Creative Teaching are more favourable among less experienced teachers or those at the beginning of their career, and gradually decline with increasing years in the profession.

Major Findings of Objective 4:

The Fourth Objective of the study was to compare the mean scores of Teacher Self-Efficacy between Gender (Male and Female), Type of School Management (Government and Private), Professional Qualification (Trained and Untrained) and Teaching Experience (0-10 years, 11-20 years, and above 20 years) of Elementary School Teachers. The main findings of this study are as follows:

a. No significant difference was found between Male and Female Elementary School Teachers in terms of Teacher Self-Efficacy. It may, therefore, be said that both Male and Female Elementary School Teachers were found to believe to the same extent in their ability to succeed in a situation.

b. A significant difference was observed between Government and Private Elementary School Teachers in terms of Teacher Self-Efficacy.

   Teachers from Private Elementary Schools had higher self-efficacy compared to their Government counterparts.

   However, the effect size was small (*Cohen's d* = 0.315), indicating that the difference between groups had moderate significance.

c. No significant difference was found between Trained and Untrained Elementary School Teachers in terms of Teacher Self-Efficacy. Both Trained and Untrained Elementary School Teachers were found to believe to the same extent in their ability to succeed in a situation.

d. No Significant difference was observed in Teacher Self-Efficacy concerning Teaching Experience. Teachers across different experience groups showed similar confidence in their ability to succeed in a situation.

Major Findings of Objective 5:

The Fifth Objective was "To examine the interaction effects of Gender, Type of School Management, Professional Qualification, and Teaching Experience on Creativity-Fostering Teacher Behaviour among elementary school teachers".

a. Elementary School Teachers' Creativity Fostering Teacher Behaviour was found to be dependent on the interaction between Type of School Management and Teaching Experience. The analysis revealed a statistically significant interaction between School Management and Teaching Experience ($F = 4.353$, $p = .013$).
b. Other interaction effects were not statistically significant ($p>.05$), indicating that gender, professional qualification, and their combined interactions did not substantially impact the dependent variable.
c. The remaining two-way, three-way, and four-way interactions were non-significant ($p > .05$), implying that the combined effect of all four independent variables does not produce additional variation beyond individual and two-way interactions.

Major Findings of Objective 6:

The Sixth Objective was "To examine the interaction effects of Gender, Type of School Management, Professional Qualification, and Teaching Experience on Creative Teaching Attitude among elementary school teachers".

The independent variables do not interact significantly in shaping Creative Teaching Attitude among elementary school teachers, as all interaction effects among the independent variables—Gender, Type of School Management, Professional Qualification, and Teaching Experience on Creative Teaching Attitude of Elementary School Teachers are statistically insignificant.

Major Findings of Objective 7:

The Seventh Objective was "To examine the interaction effects of Gender, Type of School Management, Professional Qualification, and Teaching Experience on Teacher Self-Efficacy among elementary school teachers".

a. Gender interacts with both School Management and Professional Qualification, affecting Teacher Self-Efficacy. A two-way interaction effect was found between Gender and School Management, as well as between Gender and Professional Qualification.
b. The remaining two-way, three-way, and four-way interactions were non-significant ($p > .05$), implying that the combined effect of all four independent variables does not produce additional variation beyond individual and two-way interactions.

Major Findings of Objective 8:

The Eighth Objective was "To determine the relationship between Creativity Fostering Teacher Behaviour and Creative Teaching Attitude of Elementary School Teachers".

a. There was a significant relationship between Creativity Fostering Teacher Behaviour and Creative Teaching Attitude of Elementary School Teachers
b. The strength of the relationship between Creativity Fostering Teacher Behaviour and Creative Teaching Attitude was a Low, Positive Correlation among Elementary School Teachers.

Major Findings of Objective 9:

The Ninth Objective was "To determine the relationship between Creativity-Fostering Teacher Behaviour and Teacher Self-Efficacy among elementary school teachers".

a. There was a significant relationship between Creativity Fostering Teacher Behaviour and Teacher Self-Efficacy of Elementary School Teachers
b. The strength of the relationship between Creativity Fostering Teacher Behaviour and Teacher Self-Efficacy was a Moderate, Positive Correlation among Elementary School Teachers.

Major Findings of Objective 10:

The Tenth Objective was "To determine the relationship between Creative Teaching Attitude and Teacher Self-Efficacy among elementary school teachers".

a. There was a significant relationship between Creative Teaching Attitude and Teacher Self-Efficacy of Elementary School Teachers
b. The strength of the relationship between Creative Teaching Attitude and Teacher Self-Efficacy was a Low, Positive Correlation among Elementary School Teachers.

Major Findings of Objective 11:

The Eleventh Objective was "To examine the predictive contribution of Creative Teaching Attitude and Teacher Self-Efficacy to Creativity-Fostering Teacher Behaviour among elementary school teachers".

a. It was found that there was a significant contribution of Creative Teaching Attitude and Teacher Self-Efficacy in predicting Creativity Fostering Teacher Behaviour of Elementary School Teachers.
b. Teacher Self-Efficacy was found to be a slightly better predictor of Creativity Fostering Teacher Behaviour of Elementary School Teachers.
c. The model explains a fair to moderate proportion of variance. Hence, other factors may also influence Teacher Creativity Fostering Behaviour.

5.2. Discussion of Results

The findings of the study have been discussed theme-wise by corroborating with the review of related literature, which is presented below:

5.2.1 Discussion on the Findings Related to Creativity Fostering Teacher Behaviour among Elementary School Teachers

The present study found that most Elementary School Teachers have a moderate level of creativity-fostering teacher Behaviour. Similar findings have been reported by Edinger (2008), whose study found that high school teachers demonstrate creativity-fostering behaviours to a moderate extent, and is of the view that both personal and environmental factors influence teachers' creativity-fostering behaviours. However, levels of creativity-fostering teacher behaviour have been found to differ across studies. Konstantinidou and Zisi's (2017) study observed low levels of creativity among teachers and suggested that this could be attributed to a lack of academic education and professional development in creativity, as well as a rigid curriculum that restricts teachers' ability to explore creative teaching methods. In contrast, Hondzel's (2013) study on elementary school teachers found high levels of creativity-fostering behaviour among teachers. In addition, Al Dababneh et al. (2019) and Taat and Suki (2021) found creativity-fostering behaviour among teachers to be high. They asserted that teachers with higher creativity-fostering behaviour were more prepared for 21st-century classroom management.

Upon examining the Elementary School Teachers' Creativity Fostering Teacher Behaviour dimension-wise, the study revealed that the teachers scored more on the Question and Frustration dimensions. This implies that teachers take students' questions and suggestions seriously and do not dismiss them lightly. They are also able to help students cope with failures and frustrations, providing them with the needed emotional support. However, teachers scored low on the Independence dimension, which relates to their ability to encourage students to learn independently. Plausible reasons for this could be limited flexibility in the curriculum design, which tends to focus on rote learning and covering the syllabus rather than encouraging students to explore and leave space for individual learning.

Gender did not influence teachers' creativity-fostering behaviour as no significant difference was found between male and female teachers. This finding is supported by Forrester and Hui (2007), Hondzel (2013), Avadhanam and Chand (2016), and Tok (2022) studies, where no significant difference was observed regarding gender in teachers' creativity-fostering behaviour. In contrast, Al Dababneh et al.'s (2019) study indicated significant gender differences, with females demonstrating more favourable behaviour towards fostering children's creativity. The study's finding that gender did not influence teachers' creativity-fostering behaviour could be because teacher creativity-fostering behaviour may be more closely linked to teaching philosophy, creative traits, and professional experience, which are associated with both men and women, and not limited to any specific gender

A significant difference was observed between Government and Private Elementary School Teachers. The study revealed that private elementary school teachers demonstrated higher levels of creativity-fostering behaviour compared to their counterparts in government elementary schools. This could perhaps be due to parental expectation and pressure on private school teachers to nurture students' creativity. In addition, it could also be due to Private schools having better infrastructure and access to resources that enable teachers to experiment with innovative teaching strategies and most importantly, the support from school authorities to create an environment that is conducive for fostering creativity, as Liu and Wang (2019) study found schools creative climate to be an important mediating factor in influencing teachers creativity behaviour.

Teacher Professional Qualification did not influence Creativity Fostering Teacher Behaviour, as no significant difference was found between Trained and Untrained Elementary School Teachers in their creativity-fostering behaviour. This result is in line with the findings of Forrester and Hui (2007), Hondzel (2013), and Tok (2022), where teacher qualification did not significantly relate to teacher creativity-fostering behaviour. However, it contradicts the findings of Avadhanam and Chand's (2016) study, which found teacher qualification to be a significant predictor of innovative teacher behaviour. A plausible reason for the lack of significant difference in teacher creativity-fostering

behaviour concerning professional qualifications could be the insufficient attention to explicit creativity theories and the inadequate training in applying creative strategies during teacher preparation stage.

Another major finding of the study is that a significant difference was observed in the Creativity Fostering Teacher Behaviour concerning Teaching Experience. It was observed that Teacher Creativity Fostering Behaviour gradually declines with increasing years of Teaching Experience. Highest Creativity Fostering Teacher Behaviour was seen in Teachers belonging to the 0 -10 years of teaching experience group, and lowest in the teachers belonging to the Highly experienced group (Above 20 years). This finding aligns with Cayirdag's (2017) study, which revealed a negative relationship between teaching experience and creativity-fostering behaviour, with more experienced teachers demonstrating less creativity-supporting behaviour. Differing results have also been seen where moderate correlation between years of teaching experience and the overall creativity-fostering behaviour of teachers was found in Hondzel's (2013) study, and no relation of teaching experience with teachers' creativity-fostering behaviour in studies conducted by Forrester and Hui (2007), Avadhanam and Chand (2016), and Tok (2022).

There was a significant effect of Teaching Experience on creativity-fostering teacher behaviour among elementary school teachers. There was also a significant two-way interaction effect of Type of School Management and Teaching Experience on Creativity Fostering Teacher Behaviour of Elementary School Teachers. Although both Government and Private elementary school teachers experienced a decline in their Creativity-Fostering Teacher Behaviour with increasing years of teaching experience, the decline was particularly pronounced among highly experienced teachers in Private Schools. Plausible reasons for this decline in the case of highly experienced teachers could be a lack of active pursuit of professional development courses and a decline in the teacher's motivation to implement creative teaching. Additional factors could include teachers engaging in more administrative roles or being rigid in their approach to embracing new and innovative teaching methods.

5.2.2 Discussion on the Findings Related to Creative Teaching Attitude

It was observed that, although there are variations in the level, the results indicate that most elementary school teachers (37%) in Nagaland possess a moderate level of Creative Teaching Attitude. Several factors could be attributed to teachers not having a highly favourable attitude towards Creative Teaching. One of the factors could be the teachers' lack of a solid understanding of what creativity in education entails and effective ways to implement creative teaching. Often, teachers tend to believe creativity to be an innate ability that not every student possesses. This view has been supported by Paek & Sumners (2017), whose study showed that teachers' implicit beliefs and attitudes play a role in how creative teaching is implemented in the classroom. Although creativity is regarded as an educational imperative, hurdles to its actual practice in class include a rigid curriculum, challenges in assessing students' creativity, and exam pressure.

Upon examining the Elementary School Teachers' Creative Teaching Attitude dimension-wise, the study revealed that the teachers scored more on Classroom Ethos. This implies that teachers have a more favourable attitude towards creating a classroom climate that fosters positive engagement, encourages students to feel safe, and stimulates curiosity and risk-taking. Teachers are in favour of allowing students to work with suitable learning resources and to be influenced by the creative leadership of the teacher. However, a less favourable attitude was observed towards using diverse teaching approaches and strategies that foster students' creativity. This could be because teachers are uncertain about its effectiveness and also have concerns about the increased workload.

Gender did not influence teachers' attitudes towards creative teaching, as no significant difference was found between male and female teachers. This finding is supported by Kaur (2015), Katoch (2017), and Gaur (2019), whose studies found no significant difference in the creative teaching attitude between male and female teachers. In contrast, significant differences were observed in studies by Gupta and Jan (2018), Niwas (2018), Al Dbabneh et al. (2019), and Mahato and Sen (2023), where female teachers have shown a more positive attitude towards creative teaching. The study's finding that gender was not a significant factor in determining teachers' attitudes towards

creative teaching may be attributed to the fact that teachers' attitudes towards creative teaching are closely tied to their teaching philosophy and professional experience, which are associated with both genders.

A significant difference was observed between government and private elementary school teachers' attitudes towards creative teaching. The study found that teachers from private elementary schools have a more favourable attitude towards creative teaching than teachers from government elementary schools. However, studies done by Katoch (2017) and Gaur (2019) found no significant difference concerning the type of school management on teachers' attitude towards creative teaching. Several plausible intrinsic and extrinsic factors could be attributed to private teachers reporting a more favourable attitude towards creative teaching. Intrinsic factors, such as the private teachers' higher motivation to implement creative teaching, coupled with autonomy and flexibility to try innovative approaches in the classroom, are key. Extrinsic factors influencing teachers' attitudes towards creative teaching may be due to a school culture that values creativity.

Teachers' Professional Qualification did not influence their attitude towards creative teaching, as no significant difference was found between Trained and Untrained Elementary School Teachers' attitude towards creative teaching. Reasons for this could be a lack of adequate need assessment during teacher preparation programmes, and teacher professional development programmes usually being one-time workshops instead of sustained training, resulting in a lack of a sound understanding of creative teaching and an inclination towards implementing it in classrooms. However, this finding contradicts Niwas's (2018) study, where more qualified, trained teachers reported a more positive attitude towards creative teaching.

A major finding of the study is that a significant difference was observed in teachers' attitudes towards creative teaching, particularly in terms of teaching experience. The most favourable attitude was observed in teachers from the 0-10 years group, and the lowest in the highly experienced group (those with more than 20 years of experience). It was observed that teachers' attitudes towards Creative Teaching were more favourable among less experienced teachers or those at the beginning of their careers, and gradually

declined with increasing years of experience in the profession. Plausible reasons for this could be a decline in teacher motivation to engage in new and innovative teaching strategies and a lack of active pursuit of teacher professional development courses. This, however, contradicts the findings of Gaur's (2019) study, which suggests that the length of service does not influence teachers' attitudes towards creative teaching.

There was a significant effect of Teaching Experience on the Creative Teaching Attitude of Elementary School Teachers. However, no significant interaction effect of Gender, Type of School Management, Professional Qualification, and Teaching Experience on Creative Teaching Attitude of Elementary School Teachers was found. Although there is limited empirical research on teachers' attitudes towards creative teaching and its relationship with teaching experience, this area warrants further investigation. Plausible reasons for less experienced teachers having a more favourable attitude towards creative teaching and a gradual decline with increasing years of teaching experience in the study could be that younger teachers in the profession are more open to experimenting with innovative teaching strategies, including the use of ICT in the classrooms, as a result of the reforms in teacher preparation programmes. Furthermore, highly experienced teachers may exhibit a decline in motivation to engage in professional development initiatives and adopt innovative teaching strategies, potentially leading to a greater reliance on traditional instructional methods over time.

5.2.3 Discussion on the Findings Related to Teacher Self-Efficacy

The study found variation in the levels of teacher self-efficacy among elementary school teachers in Nagaland; however, a significant proportion (40%) reported a moderate level of self-efficacy. These findings align with those of Sharma and Kaur (2017) and Singh et al. (2018), who similarly observed average self-efficacy levels among teachers in their respective studies. In contrast, research conducted by Tschannen-Moran and Hoy (2001) in the United States revealed relatively high levels of teacher self-efficacy.

Additionally, studies have found that teacher self-efficacy is lower among Indian teachers. A study conducted by Watkins and Zhang (2006) compared teacher self-efficacy across the US, China, and India. The findings reported that Indian teachers have a lower

level of self-efficacy compared to teachers in the US and China. Similarly, Sharma and Dharmendra (2015) found that Indian teachers' self-efficacy was lower than that of Australian teachers. A plausible reason for this could be the lack of continued professional development among teachers, which results in weak mastery experiences. This is because increased professional development among teachers is correlated with increased teacher efficacy (Madden-Szeszko, 2000**;** Pressley & Rangel, 2023). A decline in teacher motivation, as found by Barni et al. (2019), was also associated with variations in teacher self-efficacy. Additionally, Calkins' (2024) study revealed that teacher motivation, particularly intrinsic and altruistic motivation for becoming a teacher, was positively correlated with teacher self-efficacy. Other likely reasons could be a lack of reinforcement in the form of support from administrators and colleagues, as well as work-related stressors, as reported by several researchers in the past (Kim, 2007; Gonzalez et al., 2016; Lazarides et al., 2020; Pressley & Rangel, 2023).

The dimensions included in the present study to assess Teacher Self-Efficacy are: instructional efficacy, self-efficacy in classroom management, self-efficacy in inclusive practices, self-efficacy in fostering ethics and values, self-efficacy to adapt to changes and challenges, and self-efficacy in cooperating with colleagues and parents. Upon examining the Elementary School Teachers' Self-Efficacy dimension-wise, the study revealed that the teachers scored highest in Instructional Efficacy and lowest in the Ethics and Values dimension. This indicates that Teachers are confident in their ability to use instructional strategies successfully with students of varying learning abilities and achieve the learning objectives. However, they are less confident in their ability to foster the social and ethical capacities and dispositions of the students embedded in the Indian ethos.

No significant difference was found between Male and female elementary school teachers in terms of Teacher Self-Efficacy. It may, therefore, be said that both Male and Female Elementary School Teachers were found to believe to the same extent in their ability to succeed in a situation. This could perhaps be because self-efficacy is influenced more by the professional experience (enactive experience) of the teacher rather than by their gender. This finding is in accordance with the findings of Amanulla and Aruna

(2014), Ozkal (2014), Sethi and Mittal (2015), Menon and Sobha (2017), Pooja (2019), and Poulou et al. (2019), who reported no significant difference in self-efficacy between male and female teachers. In contrast, studies by Beatty (2002), Ford (2012), and Jocelyn and Sammanasu (2016) found female teachers to have higher levels of self-efficacy.

A significant difference was observed between Government and private elementary school teachers in terms of Teacher Self-Efficacy. Teachers from Private Elementary Schools reported higher self-efficacy compared to their Government counterparts. This finding contradicts the findings of Pooja (2019), which reported no significant difference in self-efficacy between teachers from government and private schools. However, the findings of this study are supported by the following results of past studies. Amanulla and Aruna (2014) found a significant difference in the self-efficacy of teachers regarding management type, where teachers in private schools reported higher self-efficacy. Zamir et al. (2017) found in their study that private school teachers at the elementary level had higher self-efficacy compared to public school teachers. The investigators believe that teacher self-efficacy is influenced by the conception teachers have of the workplace.

The teacher's professional qualification did not significantly influence their self-efficacy in the study, as no significant difference was found between Trained and Untrained elementary school teachers in terms of teacher self-efficacy. Both Trained and Untrained elementary school teachers were found to believe to the same extent in their ability to succeed in a situation. This could plausibly be because teacher self-efficacy is considered to be task-specific, and a regular teacher preparation programme may not address all the specific challenges teachers face in actual classrooms. Moreover, past experiences and pre-existing beliefs held by the teacher can have a strong influence on teacher self-efficacy.

Teachers across different experience groups showed similar confidence in their ability to succeed in a situation, as no significant difference was observed in the Teacher Self-Efficacy concerning Teaching Experience. The relationship between teacher self-efficacy and years of teaching experience remains inconclusive. While Menon & Sobha (2017) observed significant differences in teachers' self-efficacy and teaching experience, Ford

(2012) found that older and more experienced teachers had higher self-efficacy. In contrast, Punia and Kaushik (2012) and Amanulla and Aruna (2014) found no significant differences in the self-efficacy beliefs of teachers based on their years of teaching experience.

Elementary School Teachers' Self-Efficacy was found to be dependent on the interaction between Gender and Professional Qualification. The self-efficacy of trained Male teachers is higher compared to that of Female trained teachers. Whereas, for Untrained teachers, self-efficacy is higher in female teachers compared to their Male counterparts. No empirical research was found to support or contradict this finding.

A significant two-way interaction effect was found between Gender and Type of School Management on the Teacher Self-Efficacy of Elementary School Teachers. It was observed that as the Type of School changes from Government Schools to Private Schools, there is a sharp increase in teacher self-efficacy for both Male and Female teachers. Similar findings have been reported by Zamir et al. (2017), who found that male private school teachers at the elementary level had higher self-efficacy compared to male government school teachers. Female elementary school teachers teaching at both private and government schools reported a higher level of self-efficacy than their male counterparts. The investigator believes that among the various reasons for this difference, workplace culture plays a significant role, and the notion of teacher self-efficacy is influenced by the teachers' conception of the workplace. As such, the workplace culture of private schools could be better and is an influential factor in teacher self-efficacy.

5.2.4 Discussion on the Findings related to the Relationship between Creativity Fostering Teacher Behaviour, Creative Teaching Attitude and Teacher Self-Efficacy

The study found that Creativity Fostering Teacher Behaviour has a significant relationship with both Creative Teaching Attitude and Teacher Self-Efficacy among elementary school teachers. This result is parallel to the findings of Cayirdag (2017), which indicate that teacher self-efficacy with an internal locus of control is strongly related to creativity-fostering teacher behaviour. The investigator posits that teachers who strive against adversity and challenges are more likely to exhibit creative behaviour. They also

consider the teacher's internal locus of control as a crucial quality for fostering creativity in teaching. The development of a favourable attitude towards creative teaching will be beneficial in how teachers respond and react to their students, and result in teachers demonstrating behaviours that are considered conducive to fostering student creativity. In addition, Ozkal's (2014) study found that teachers who are confident in their ability to succeed in a situation or task display more creativity-fostering behaviour and support the finding that teacher self-efficacy has a positive relationship with creativity-fostering teacher behaviour.

Similarly, a significant relationship was found between Creative Teaching Attitude and teacher self-efficacy among elementary school teachers. Though there is a dearth of research on the relationship between creative teaching attitude and teacher self-efficacy and prediction of Creativity Fostering Teacher Behaviour by Creative Teaching Attitude and Teacher Self-Efficacy, however the abovementioned result may be supported by the finding of related studies among which the study conducted by Ravi (2013) concludes that the teacher's attitude towards teaching is a significant factor in influencing the teacher's self-efficacy. Similarly, Al Dababneh et al. (2019) reported a strong positive correlation between teacher self-efficacy and creative teaching within classroom environments. Huang et al.'s (2019) study found that the process-focused aspect of self-efficacy was significantly related to teachers' attitudes towards implementing teaching for creativity. Additionally, Li & Li's (2019) study also indicated that teaching creativity in the classroom and teachers' attitude towards the implementation of creative teaching are positively correlated with teacher self-efficacy. Therefore, based on the aforementioned empirical research, it can be stated that Creative Teaching Attitude and Teacher Self-Efficacy are positively related and may act as predictor variables for Creativity-Fostering Teacher Behaviour, a finding also confirmed by the present study.

5.3 Educational Implications of the Study

Fostering students' creativity has emerged as a critical priority in contemporary educational systems. Teacher-related factors play a pivotal role in achieving this objective, and the findings of the present study offer several meaningful implications.

The research provides valuable insights into the prevailing levels of creativity-fostering teacher behaviour, attitudes toward creative teaching, and teacher self-efficacy among elementary school teachers in Nagaland. Furthermore, it sheds light on the interrelationship among these variables. Such understanding can guide the development of targeted interventions and the customisation of professional development programmes that address context-specific needs—ultimately enhancing teacher effectiveness and promoting improved student learning outcomes.

The present study revealed that a majority of elementary school teachers exhibit creativity-fostering behaviour at a moderate level. In light of the educational aspirations outlined in the National Education Policy (NEP) 2020, which deems cultivating student creativity vital for fostering innovation and global competitiveness, these findings underscore the critical need for teachers to remain aware of the impact of both their instructional and interpersonal behaviours within the classroom. As emphasised by Soh (2000, p. 118), the "actions and reactions" of teachers can significantly influence students' creative expression, either inhibiting or nurturing it.

The study underscores the importance of examining the challenges faced by teachers at various stages of their professional careers. Findings revealed a declining trend in both creativity-fostering behaviour and attitudes toward creative teaching among more experienced teachers. This suggests that the needs and challenges confronting teachers are not uniform but vary significantly at different stages of their professional careers. Addressing these differentiated needs requires attention to both intrinsic factors—such as personal motivation and sense of efficacy—and extrinsic factors, including institutional support and professional autonomy. Implementing intervention strategies that sustain teacher morale, encourage creative instructional practices, and cultivate a school culture

that values creativity can be instrumental in mitigating these challenges and enhancing teaching effectiveness.

The study's findings have significant implications for elementary school teachers, particularly in fostering students' independent learning and self-assessment. Results indicated that teachers demonstrated limitations in certain aspects of creativity-fostering behaviour—specifically in encouraging autonomy and evaluative reflection among students. This highlights the need for instructional practices that promote exploration and individualised learning, where students are invited to express what they have learned independently. Additionally, creating opportunities for learners to assess their work can strengthen their capacity for self-evaluation, ultimately cultivating ownership of learning and creative confidence.

The study also sheds light on the difference between government and private school teachers. It revealed that government teachers scored lower than private teachers across all three variables of the study, viz, creativity-fostering teacher behaviour, creative teaching attitude, and teacher self-efficacy. Therefore, intervention strategies addressing the problems and challenges of government teachers are needed to bridge this gap.

The study emphasises that teachers' attitudes toward creative teaching significantly influence the implementation of innovative pedagogical strategies in the classroom. Findings revealed that the majority of elementary school teachers hold a moderately positive attitude toward creative teaching. However, a more favourable disposition is desirable, considering the pivotal role teachers play in nurturing student creativity through everyday classroom interactions. To cultivate such attitudes, teachers must be encouraged to adopt innovative instructional approaches, including the integration of ICT tools, and actively participate in professional development programs and workshops focused on creative teaching practices. These initiatives can help reinforce positive attitudes and empower teachers to become catalysts for creativity in their students. Teacher self-efficacy is self-referent in nature and can influence teacher behaviour. The study found that elementary teachers have only a moderate level of teacher self-efficacy. It is crucial to improve teacher self-efficacy to successfully meet the various tasks assigned to teachers,

as self-efficacy beliefs are task-specific and can have a profound impact on how creativity is fostered in the classroom.

The study has important implications, as it supports the findings of previous research that indicate teachers' attitudes can influence their behaviour. The results show that a creative teaching attitude is positively linked to teacher behaviours that promote creativity. Therefore, developing a positive attitude toward creative teaching will be beneficial in shaping how teachers engage with creative practices, leading them to demonstrate behaviours that effectively foster student creativity. The study also sheds light on the relation between teacher self-efficacy and creativity-fostering teacher behaviour. The higher the level of teacher self-efficacy, that is, teachers' belief in their capability to succeed in a task or situation, the better will be the teacher's manifestation of behaviour that fosters creativity. Teachers should therefore try to improve their self-efficacy through mastery and vicarious experiences.

The study findings indicate that creative teaching attitude and teacher self-efficacy significantly contribute to predicting creativity-fostering teacher behaviour. This calls for a concerted effort of all stakeholders to ensure that teachers develop a positive attitude towards creative teaching and improve their self-efficacy. A foundational step in this direction is equipping teachers with a clear understanding of the concept of creativity in education, as their perceptions directly shape their classroom practices. Improving self-efficacy entails providing teachers with the necessary skills to meet daily instructional demands, alongside nurturing a supportive school climate that values and reinforces teachers' creative efforts.

5.4 Recommendations of the study

Considering the study's findings and the challenges teachers face in fostering students' creativity, the investigator proposes the following recommendations to strengthen the existing situation effectively.

5.4.1 Recommendations for Policymakers

Teacher Training: Educational policy-makers can strengthen competency-based teacher preparation programmes to equip student-teachers with the pedagogical knowledge, skills,

and adaptability required to foster students' creativity. Furthermore, sustained professional development programmes should be provided, which will help and encourage teachers to foster student creativity.

Teacher Autonomy: Educational policy-makers can grant flexibility in curriculum design and support teacher autonomy in classroom decision-making.

Promote Research and Innovation: Encourage teacher-led innovation and Action research on creative teaching practices. Foster collaborations between universities and institutions.

Incentives and Recognition: Awards can be granted to teachers for their creative and innovative teaching practices, and incentives can be offered to schools that promote creativity.

5.4.2 Recommendations for Teacher Educators

The teacher education programme in general needs to be looked at more closely. There is a need to examine whether the teacher education curriculum facilitates the transformation of a student-teacher from a learner in the art and science of teaching to an adequately equipped teacher who can foster students' creativity in actual school settings.

An operational definition of creativity: A more pragmatic approach is for teacher educators to emphasise an operational definition of creativity, rather than a conceptual definition, so that teachers are equipped with the knowledge and skills necessary to foster student creativity in actual classroom settings.

Integrate Creative Pedagogy: Implement a creative pedagogy that enables teachers to creatively connect across and within subjects.

Foster positive teacher efficacy: Foster teacher efficacy by building the confidence of teachers in creative teaching and providing constructive feedback.

5.4.3 Recommendations for School Administrators

Favourable School Climate: School administrators should ensure that they provide a school climate that values and fosters creativity in school.

Resources and Infrastructure: Schools should provide adequate infrastructure and resources necessary to foster students' creativity, such as access to technology, a variety of art and craft materials, and flexible learning spaces and facilities.

Build Teacher Self-Efficacy*:* School administrators should provide opportunities for teachers to enhance their self-efficacy, particularly for young teachers, whose self-efficacy is considered most malleable at this stage, by building on successful experiences.

Foster Community Partnership: School administrators can encourage partnerships with local artists and NGOs. Encourage school-community projects. Additionally, administrators can foster parent-teacher associations that promote teacher self-efficacy and support students' creativity.

5.4.4 Recommendations for Teachers

Model Creativity: Teachers should model and demonstrate creativity in the classroom. Teachers can share personal experiences and successes as well as failures in dealing with problems while fostering student creativity. Encourage experimentation and risk-taking and demonstrate a willingness to try new things with the students.

Self-Reflection: Teachers should reflect on their creative practices, identify their strengths and weaknesses, as this would encourage teacher self-assessment and growth.

Emphasise Student-Centred Learning*:* Teachers should encourage student autonomy and independent learning. Integrate real-world problems into lessons and encourage students to find solutions to these problems.

Teacher Collaboration: Teachers should foster networks and communities of practice to share best practices, encourage open communication, and provide peer mentoring and emotional support, which are essential for every teacher throughout their professional career, regardless of their subject specialism.

Capacity-building Behaviour: Teachers should be equipped with 'capacity-building behaviour' (Soh, 2000) to foster students' creativity. Continuous learning and professional development courses would be beneficial, as they equip teachers with the pedagogical skills necessary to effectively cultivate creativity in their students. This would, in turn, enhance teacher self-efficacy by endowing them with mastery experiences.

5.4.5 Recommendations for Students

***Independence in Learning**:* Students can take the initiative in exploring topics beyond the prescribed syllabus. Use classroom projects as opportunities to design their own approach, choose resources, and set personal goals.

Collaborate Effectively: Students should work with peers on tasks that demand divergent thinking: joint brainstorming, peer feedback, and co-creation of outputs that sharpen both creative and social skills.

5.4.6 Recommendations for Parents and Local Community

Reinforce creative habits at home: Parents should encourage curiosity, divergent thinking, and problem-solving in everyday family activities, providing students with consistent support for creativity both in and out of school.

Bridge school–industry gaps: The local community can sponsor internships or innovation labs that align with classroom learning objectives.

5.5 Suggestions for Further Studies

i) The major limitation of this study is the exclusive use of self-reporting measures. Since the investigator has employed a survey design for collecting data, it is assumed that such data may be susceptible to *common method bias* or *social desirability bias*. Hence, it is recommended that future research employ a mixed-methods design to mitigate the weaknesses inherent to using a single approach.

ii) Future studies can use an observation tool to conduct a more in-depth study of teacher creativity-fostering behaviours. This would enable the investigator to conclude the circumstances under which specific creative teaching strategies are used in the classrooms.

iii) Further studies can be conducted on the creative self-efficacy of teachers and its impact on student creativity.

iv) A similar study can be conducted to compare teachers teaching at various levels of education – Primary, Secondary, and Higher Education levels.

v) A similar study can be conducted to compare the creativity-fostering teacher behaviour, creative teaching attitude and teacher self-efficacy of General teachers and Special Education teachers.

5.6 Conclusion

The National Education Policy (NEP) 2020 emphasises that teachers serve as the foundational agents in driving meaningful reforms within the education system (Ministry of Human Resource Development, Government of India, 2020). Teachers are undeniably instrumental in fostering creativity within the educational landscape. The present study explored the creativity-fostering teacher behaviour among elementary school teachers in Nagaland and its relationship with creative teaching attitude and teacher self-efficacy.

This study has contributed to illuminating the status of creativity-fostering teacher behaviour, creative teaching attitudes, and teacher self-efficacy among elementary school teachers in the state of Nagaland. The findings indicate that, although elementary school teachers in Nagaland exhibit moderate levels of creativity-fostering behaviour, creative teaching attitude, and self-efficacy, there are notable differences based on the type of school management and years of teaching experience. The study's findings indicate that private elementary school teachers in Nagaland demonstrate higher creativity-fostering behaviour and a more favourable attitude towards creative teaching compared to their government counterparts. Additionally, teacher creativity-fostering behaviour and their attitude towards creative teaching gradually decline with increasing years of teaching experience. This suggests that the challenges faced by teachers are not uniform and vary significantly throughout the different stages of their professional careers, necessitating tailored intervention strategies that address both intrinsic and extrinsic factors. Moreover, the research indicates significant differences between government and private elementary school teachers in terms of creativity-fostering behaviours, attitudes toward creative teaching, and self-efficacy. This gap calls for immediate attention and the development of tailored strategies to support government elementary school teachers in Nagaland, ensuring they are equipped to foster student creativity effectively.

The study also highlights the importance of fostering a school culture that values creativity, alongside providing teachers with the autonomy and resources to explore creative teaching methods. Furthermore, the study showed that creative teaching attitude and teacher self-efficacy are significant predictors of creativity-fostering teacher behaviour. The positive correlation between teachers' attitudes towards creative teaching and their actual creativity-fostering behaviours suggests that a favourable attitude of teachers towards creative teaching can influence how innovative teaching practices are incorporated in the classroom. A teacher's attitude towards creative teaching has a direct influence on how teachers engage with students in the class and can have a direct bearing on their creativity development. A more favourable attitude of teachers towards creative teaching can be achieved through professional development opportunities, such as workshops focused on creative teaching practices, which equip teachers with the knowledge and skills to integrate creativity along with information and communication technology (ICT) into the classroom. Additionally, the findings reveal that teacher self-efficacy is vital in shaping creativity-fostering teacher behaviour. Teachers who believe in their capabilities to succeed in a task are more likely to engage in practices that encourage student creativity. Therefore, efforts to improve teacher self-efficacy through skill development and supportive school environments are essential.

In summary, this study suggests that improved teacher attitudes towards creative teaching and self-efficacy can positively influence creativity-fostering teacher behaviour, and therefore advocates for a comprehensive approach involving all stakeholders—educators, administrators, policymakers, and the broader community to cultivate an educational atmosphere that prioritises creativity. By addressing the specific needs of teachers, a more dynamic and innovative educational experience can be created for students. Ultimately, the findings of this research not only contribute to the existing body of knowledge on creativity in education but also underscore the importance of transformative changes that support teachers as creative leaders in educational settings.

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APPENDIX-A

NAGALAND UNIVERSITY

(A Central University Established by the Act of Parliament, 35/1989)

DEPARTMENT OF TEACHER EDUCATION, KOHIMA CAMPUS

MERIEMA-797004

Dear Respondent,

I, Azono Nakhro, a research scholar in the Department of Teacher Education, Nagaland University, am conducting a study entitled *"Creativity Fostering Teacher Behaviour in Relation to Creative Teaching Attitude and Teacher Self-Efficacy of Elementary School Teachers in Nagaland"* under the supervision of Dr Rashmi, Assistant Professor, Nagaland University.

I request your valuable cooperation by filling in the following questionnaires. I earnestly request that you answer it wholly and honestly. The responses will be kept confidential and utilised solely for research purposes.

Thanking You

Research Supervisor	Research Scholar
Dr Rashmi	Azono Nakhro
Assistant Professor	Regd.No. Ph.D/TED/00397

Please furnish the following information:

Name of the School :

Type of School : Government ☐ Private ☐

Gender : Male ☐ Female ☐

Professional qualification: D.EL.Ed. ☐ B.Ed. ☐ B.El.Ed ☐ M.Ed. ☐ None ☐

Teaching Experience : 0-10 yrs ☐ 10-20 yrs ☐ Above 20 yrs ☐

Creativity Fostering Teacher Behaviour Index (Soh, 2000)

Different teachers have different teaching styles. They also handle students' ideas and learning problems differently. What, then, is your style?

The following are some statements with six response options like **"All the Time", "Frequently", "Sometimes, "Rarely", "Almost Never", or "Never".** Read each statement carefully and tick (✓) to mark only the option you find most appropriate and valid in your case. There are no right or wrong answers. The information you provide will be confidential and utilised solely for research purposes.

Sl. No.	Statement	All the Time	Frequently	Sometimes	Rarely	Almost Never	Never
1	I encourage students to show me what they have learned on their own.						
2	In my class, students have opportunities to share ideas and views.						
3	Learning the basic knowledge/skills is emphasized in my class.						
4	When my students have some ideas, I get them to explore further before I take a stand.						
5	In my class, I probe students' ideas to encourage thinking.						
6	I expect my students to check their own work instead of waiting for me to correct them.						
7	I follow up on my students' suggestions so that they know I take them seriously.						
8	I encourage my students to try out what they have learned from me in different situations.						
9	My students who are frustrated can come to me for emotional support.						
10	I teach my students the basics and leave them to find out more for themselves.						

11	Students in my class have opportunities to do group work regularly.						
12	I emphasize the importance of mastering the essential knowledge and skills.						
13	When my students suggest something, I follow it up with questions to make them think further.						
14	I encourage my students to ask questions freely even if they appear irrelevant.						
15	I provide opportunities for my students to share their strong and weak points with the class.						
16	When my students have questions to ask, I listen to them carefully.						
17	When my students put what they have learnt into different uses, I appreciate them.						
18	I help students who experienced failure to cope with it so that they regain their confidence.						
19	I leave questions for my students to find out for themselves.						
20	Students in my class are encouraged to contribute to the lesson with their ideas and suggestions.						
21	My students know that I expect them to learn the basic knowledge and skills well.						
22	I do not give my view immediately on students' ideas, whether I agree or disagree with them.						
23	I encourage my students to think in different directions even if some of the ideas may not work.						
24	My students know that I expect them to check their own work before I do.						
25	My students know I do not dismiss their suggestions lightly.						

26	My students are encouraged to do different things with what they have learned in class.						
27	I help my students to draw lessons from their own failures.						
28	I teach students the basics and leave room for individual learning.						
29	I encourage students to ask questions and make suggestions in my class.						
30	Moving from one topic to the next quickly is *not* my main concern in class.						
31	I comment on students' ideas only after they have been more thoroughly explored.						
32	I like my students to take time to think in different ways.						
33	In my class, students have opportunities to judge for themselves whether they are right or wrong.						
34	I listen to my students' suggestions even if they are not practical or useful.						
35	I don't mind my students trying out their own ideas and deviating from what I have shown them.						
36	I encourage students who have frustration to take it as part of the learning process.						
37	I leave open-ended questions for my students to find the answers for themselves.						
38	Students in my class are expected to work in group co-operatively.						
39	Covering the syllabus is *not* more important to me than making sure the students learn the basics well.						
40	I encourage students to do things differently although doing this takes up more time.						
41	I allow students to deviate from what they are told to do.						
42	I allow my students to show one another their work before submission.						

43	I listen patiently when my students ask questions that may sound silly.						
44	Students are allowed to go beyond what I teach them within my subject.						
45	I encourage students who experienced failure to find other possible solutions.						

Appendix-B

Teacher Attitude Scale of Creative Teaching

Instructions:

The given statements are related to teachers' attitudes towards creative teaching. For each statement, there are five response options **"Strongly Agree", "Agree", "Neither Agree nor Disagree", "Disagree", or "Strongly Disagree".** Read each statement carefully and tick (✓) to mark only the option you find most appropriate and valid in your case. As these statements are related to your attitudes and opinions, they are neither right nor wrong. The information you provide will be confidential and utilised solely for research purposes.

Sr No.	Statement	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
1	Creativity can be fostered in the class by using diverse teaching approaches.					
2*	Creative teaching is limited to certain areas, as not all subjects can be taught creatively.					
3	Teachers need to develop a wide range of skills to foster students' creative abilities.					
4	A subject can be taught and learned in a variety of ways.					
5	For creative teaching to take place, teachers should have a sound knowledge of their subject matter.					
6*	Creative teaching is a teacher's innate ability that cannot be developed through professional learning					

7	Teachers should make the curriculum meaningful to their students by drawing connections to real-life situations.					
8	Teachers should use flexible lesson plans in response to the students' learning.					
9	If a teaching strategy fails to get the students' interest, teachers should spontaneously switch to a new one.					
10*	Teachers should not experiment with innovative teaching methods but rather stick to what they know works best.					
11	Teachers should present a variety of learning materials to students to foster their creative abilities.					
12	Using insightful metaphors and analogies can enhance creative teaching.					
13	The storytelling technique effectively imparts knowledge irrespective of the learners' age group.					
14	Multisensory teaching approaches such as ICT can greatly enhance creative teaching.					
15*	Implementing creative teaching in the classroom and completing the					

	syllabus at the same time is not practical.					
16	Teaching students through my creative efforts gives me a sense of accomplishment as a teacher.					
17	The teaching techniques I use in class are influenced by my personal interest to teach better.					
18	As a teacher, I take a personal interest in my students' learning.					
19	When implementing creative teaching, I'm prepared to deal with any obstacles.					
20	I often engage in self-learning to improve my creative teaching skills.					
21	As part of my teaching strategy, I use humour to make learning fun.					
22	Even with the limited resources in my school, I try my best to implement creative teaching.					
23	Whether or not I receive support from the school, I am still committed to implementing creative teaching.					
24	While teaching, I can spontaneously relate a concept to events in the real world.					
25	When I encounter a problem during teaching, I try to determine its root cause.					

26	My motivation for implementing creative teaching is to help students learn more effectively.					
27	Studying what is relevant and practical to students' lives is more important for me than getting high grades.					
28	When it comes to improving my teaching, I gladly accept feedback and suggestions from my students.					
29	Self-reflection is an essential part of my professional development as a teacher.					
30	Teachers must demonstrate creativity in the classroom to foster students' creativity.					
31	Teachers ought to create an environment in the classroom that values creativity.					
32	Teachers should engage students in diverse activities that help them explore their creative abilities.					
33	Students should be given an opportunity to contribute to the planning of class activities.					
34	Students' work should be frequently displayed by teachers to inspire creativity.					
35	Teachers should encourage students to use their imaginations to					

	solve problems in new ways.					
36	While working on a task, students should be allowed to work at their own pace.					
37*	Providing students with various learning materials and resources will confuse them rather than help them be more creative.					
38	Students should be encouraged to elaborate on their unique ideas.					
39	Even when students' group projects fail, it is worthwhile as it enables them to collaborate and communicate.					
40	Teachers should assign students classroom activities that ignite their curiosity.					
41	Teachers should give students opportunities for self-assessment of their creative work.					
42*	Teachers should not encourage students to question things other people consider well-established facts.					
43	To nurture students' creativity, teachers should reinforce students' creative actions.					
44	The classroom should foster an environment of tolerance such that students feel comfortable making mistakes.					

45	Students' creativity is enhanced when they are allowed to spend time outside of the traditional classroom.					

Appendix –C

Teacher Self-Efficacy Scale

Instructions:

The following are some statements concerning teacher self-efficacy. For each statement, there are five response options "**Exactly True", "Moderately True", "Neutral", "Barely True", and "Not at all true"**. Read each statement carefully and tick (✓) to mark only the option you find most appropriate and valid in your case. There are no right or wrong answers. The information you provide will be confidential and utilised solely for research purposes.

Sr. No.	Statement (I)	Exactly true	Moderately true	Neutral	Barely true	Not at all true
1	As a teacher, I can effectively use different teaching methods in my subject matter.					
2	I can explain my subject's key concepts to students of different intelligence levels.					
3	With my efforts, I can successfully engage even low-achieving students in active learning.					
4	I can plan lessons based on my student's current levels of comprehension of a subject.					
5	In the classroom, I can effectively monitor students' performance.					
6	I can effectively interact with each student in the classroom without any difficulty.					
7	I am able to promote active experimentation with ideas among students.					

8	I can organise class activities such that all students work with team spirit.					
9	Even without parental involvement, I can encourage students' learning.					
10	I have no difficulty maintaining discipline in a classroom at any grade level.					
11	With my efforts, I can control even the most disruptive student behaviour.					
12	I can effectively communicate academic expectations to all students.					
14	I can ensure that students with behavioural issues follow classroom rules.					
15	I am able to instil good manners and respect for teachers in every student.					
16	I can use nonverbal cues such as eye contact and gestures to tell students their unacceptable behaviour without disrupting class.					
17*	Most of my students' bad behaviour comes from their homes, and I can't do much about it.					
18	I can adapt my teaching strategies according to the individual needs of students					
19	I can promote learning in all students, regardless of their intellectual ability.					
20	In the classroom, I can give my students tasks that					

	encourage meaningful collaboration among students of different skill levels.					
21	I am able to implement learning activities that allow students to work at their own pace.					
22	I can modify my teaching to challenge pupils who are ready for more while also providing extra support to those who require it.					
23	I can respond to various learning styles to ensure that all students learn well.					
24	I can set a good example for my students to respect one another's individual differences.					
25	My students can honestly take tests without needing me to monitor them constantly.					
26	Students in my class can derive moral lessons from the subject matter I teach.					
27	I can successfully use group activities to foster my students' moral and ethical development.					
28	I can inspire students in my class to respect the dignity of labour.					
29	I can set good examples for my students to be time-conscious and punctual for school.					
30	I can use discussion-based learning methods in the classroom to help students develop strong moral principles.					

31	Even if the curriculum is changed, I can still manage instruction smoothly.					
32	I can effectively deal with any sudden timetable shifts that I must handle.					
33	I can learn new skills and implement them successfully in the classroom.					
34	I know how to effectively handle any unexpected situation that might come up in the classroom.					
35	Even if I am directed to use teaching methods that are not my first choice, I can still be an effective teacher.					
36	I am able to incorporate new and evolving knowledge into my teaching practice successfully.					
37	I can readily approach colleagues and the school administration for assistance in learning new skills.					
38	If new technology plays a significant role in my future professional life, I can successfully learn how to use it.					
39	I can find the appropriate solution when I face work-related problems with other teachers.					
40	Whether they are beginner teachers or more experienced ones, I can work well with all of my colleagues.					
41	I can take the lead in working with other teachers					

	to make teamwork a part of how we do things at school.					
42	Regardless of a parent's educational background, I can maintain effective communication.					
43	When parents share their views, I can make them feel respected and valued.					
44	I can confidently give constructive suggestions when having challenging conversations with a student's parents.					

Appendix-D

List of Validators

Sr. No	Name	Designation Institution/University
a.	Prof. B.N. Panda	Professor Regional Institute of Education (RIE), Bhubaneshwar
b.	Prof Arbind Kr Jha	Professor School of Education, Indira Gandhi National Open University (IGNOU), Delhi
c.	Dr. Lovika P Shikhu	Assistant Professor Department of Psychology, Nagaland University
d.	Dr. Shashi Singh	Associate Professor Department of Education, Central University of Jharkhand
e.	Prof. Prabodh Kumar Panda	Professor (Retired) Regional Institute of Education (RIE), Bhubaneshwar
f.	Dr. Nitu Kaur	Associate Professor Department of Education, Mizoram University
g.	Dr. Sushil Kumar Singh	Associate Professor Dpt. Of Teacher Education, Nagaland University
h.	Prof. Subhas Chandra Roy	Professor North East Regional Institute of Education (NERIE), NCERT, Meghalaya
i.	Dr. B. Ventaka Rao	Associate Professor Department of Education, Nagaland University
j.	Dr. Anu G.S.	Associate Professor Department of Education, Nagaland University

Appendix-E

List of Selected Schools

Sr No.	Name of the District / Type of School Management	Name of the School	Male Teachers	Female Teachers	Total
1	**Mon** / Private	Ahnjong Mission School	6	2	8
2	Mon / Private	Model School	3	5	8
3	Mon / Private	Eastern School	3	5	8
4	Mon / Private	Little Flower School	6	2	8
5	Mon / Private	Edith Doughlas School	3	5	8
6	Mon / Private	Green Valley School	5	3	8
7	Mon / Govt	GMS Aboi	4	2	6
8	Mon / Govt	GHS Chen Town	4	2	6
9	Mon / Govt	GMS Totok Chingha	5	1	6
10	Mon / Govt	GHSS Mon D	2	3	5
11	Mon / Govt	GMS Tamhei	3	3	6
12	Mon / Govt	GHS Totok Chingnyu	3	3	6
13	Mon / Govt	GMS Langmeing	3	2	5
14	Mon / Govt	GMS Chenmoho	5	0	5
15	Mon / Govt	GMS Totok Chingkho	3	3	6
16	Mon / Govt	GHS Chingkao	3	3	6
17	Mon / Govt	GHS Mon Village	3	3	6
18	Mon / Govt	GMS Chi Mon	3	1	4
19	Mon / Govt	GHS Chenloisho	3	3	6
20	**Kiphire** / Private	Good Shephard School	3	6	9
21	Kiphire / Private	Agape Hr. Sec. School	4	4	8
22	Kiphire / Govt	GHSS Kiphire	1	5	6
23	Kiphire / Govt	GMS Longya	4	2	6

24	Kiphire / Govt	GHS Yangphi	4	2	6
25	Kiphire / Govt	GMS Zaonger	4	1	5
26	Kiphire / Govt	GMS PHE Ward	3	3	6
27	Kiphire / Govt	GMS Samphure	6	3	9
28	Kiphire / Govt	GMS Middle Ward	2	5	7
29	**Mokokchung**/Private	Queen Mary Hr. Sec. School	2	4	6
30	Mokokchung/Private	Whetstone High School	3	7	10
31	Mokokchung/Private	Model Hr. Sec. School	1	9	10
32	Mokokchung/Private	Eden Academy	1	4	5
33	Mokokchung/Govt	GMS Mokochung Town	0	1	1
34	Mokokchung/Govt	GMS Marepkong	2	3	5
35	Mokokchung/Govt	GMS Pongentola	0	5	5
36	Mokokchung/Govt	GMS Sungkomen	4	8	12
37	Mokokchung/Govt	GMS A&B	1	0	1
38	Mokokchung/Govt	GMS Kupza	0	5	5
39	Mokokchung/Govt	GHSS Mayangnokcha	3	1	4
40	Mokokchung/Govt	GMS Longkhum	0	1	1
41	Mokokchung/Govt	GMS Chungtiayimsen	1	0	1
42	Mokokchung/Govt	GHS Unger	2	7	9
43	Mokokchung/Govt	GHS Dilong	0	1	1
44	Mokokchung/Govt	GMS Senkalemba	4	6	10
45	Mokokchung/Govt	GHS Chuchuyimpang	0	2	2
46	Mokokchung/Govt	GHS Longmisa	1	5	6
47	**Dimapur**/Private	Greenwood School	9	4	13
48	Dimapur/Private	St. Mary’s Hr. Sec. School	0	5	5
49	Dimapur/Private	Don Bosco Hr. Sec. School	5	4	9
50	Dimapur/Private	Cornerstone Hr. Sec. School	6	5	11
51	Dimapur/Private	Christian Hr. Sec. School	1	6	7

52	Dimapur/Private	Holy Cross Hr. Sec. School	4	5	9
53	Dimapur/Private	Mt. Hermon Hr. Sec. School	2	5	7
54	Dimapur/Private	Mt Zion High School	3	3	6
55	Dimapur/Private	Shepherd's Hr. Sec. School	1	4	5
56	Dimapur/Private	Asisi Hr. Sec. School	4	3	7
57	Dimapur/Private	Nazareth Hr. Sec. School	3	3	6
58	Dimapur/Private	Carewell School	2	4	6
59	Dimapur/Govt	GMS Purana Bazar A	1	4	5
60	Dimapur/Govt	GMS Dubagaon	1	4	5
61	Dimapur/Govt	GMS Signal Angami	2	3	5
62	Dimapur/Govt	GMS Sangtam Tilla	3	3	6
63	Dimapur/Govt	GMS Kuda	0	5	5
64	Dimapur/Govt	GMS Padumpukhuri	4	2	6
65	Dimapur/Govt	GHS Kushiabill	1	4	5
66	Dimapur/Govt	GHS Darogapathar	0	5	5
67	Dimapur/Govt	GHS Naharbari	1	3	4
68	**Kohima**/Private	Ministers' Hill Hr. Sec. School	4	5	9
69	Kohima/Private	St. Andrews High School, Jotsoma	2	3	5
70	Kohima/Private	Don Bosco Hr. Sec.School, Zubza	5	3	8
71	Kohima/Private	Christian Mission School, Sechu	2	3	5
72	Kohima/Private	Dainty Buds School	5	4	9
73	Kohima/Private	Mt. Hermon Hr. Sec. School	2	4	6
74	Kohima/Private	North Field School	4	5	9
75	Kohima/Private	Alderville Hr. Sec. School	4	5	9
76	Kohima/Private	St. Mary's Hr. Sec. School	6	7	13
77	Kohima/Govt	GMS Bayavii	1	7	8
78	Kohima/Govt	GHS PWD	3	2	5

79	Kohima/Govt	GMS Lower Chandmari	4	2	6
80	Kohima/Govt	GHS New Market	0	5	5
81	Kohima/Govt	GHSS Jostoma	4	6	10
82	Kohima/Govt	GMS Phesama	4	2	6
83	Kohima/Govt	GHS Khuzama	6	2	8
84	Kohima/Govt	GHS Zhadima	4	0	4
85	Kohima/Govt	GMS L Khel, Kohima village	2	2	4
86	Kohima/Govt	GHSS Zubza	1	4	5
87	**Chumoukedima/** Pvt	Bethel Faith School	2	2	4
88	Chumoukedima/ Pvt	Puda Memorial School	6	2	8
89	Chumoukedima/ Pvt	St. Savio High School	1	4	5
90	Chumoukedima/ Pvt	Christian Mission School	4	3	7
91	Chumoukedima/ Pvt	Vision Hr. Sec. School	5	4	9
92	Chumoukedima/ Pvt	Sacred Heart School	1	5	6
93	Chumoukedima/ Pvt	Great Commission Hr. Sec.	2	3	5
94	Chumoukedima/ Pvt	Shekinah High School	3	2	5
95	Chumoukedima/ Pvt	Unity Hr. Sec. School	5	7	12
96	Chumoukedima/Govt	GHSS Diphupar	3	4	7
97	Chumoukedima/Govt	GHS Sovima	3	5	8
98	Chumoukedima/Govt	GMS Sugar Mill	4	2	6
99	Chumoukedima/Govt	GMS Model Village 5th Mile	2	3	5
100	Chumoukedima/Govt	GHS Tenyiphe I	4	5	9
101	Chumoukedima/Govt	GHSS Singrijan	4	2	6
102	Chumoukedima/Govt	GMS Siethekie C	4	1	5
103	Chumoukedima/Govt	GMS Khriezephe	3	1	4
	Total	**103**	**298**	**361**	**659**

Appendix-F

List of Publications/Paper Presentations

List of Publications:

1. (Azono Nakhro & Dr. Rashmi). Published a paper on "*Attitude of Teachers towards Creative Teaching and its Influence on Creativity Fostering Teacher Behaviour".* Shodha Samiksha. (UGC-CARE Listed Journal), Volume-24, Issue-1, January to June 2024. ISSN: 2249-5045

2. (Azono Nakhro & Dr. Rashmi). Published a paper on "*A Psychometric Revalidation of the Creativity Fostering Teacher Behaviour Scale in India"*. International Journal of Humanities and Social Science, Volume-10, Issue-01, May 2024. 1SSN (Online): 2208-2204. DOI: https://doi.org/10.53555

List of Paper Presentations:

1. (Azono Nakhro). Presented a paper entitled *"Fostering Creativity in Education: National Education Policy 2020"* in the National Seminar on Social Transformation in India 2.0 and NEP-2020 held from 21st to 22nd April, 2022, organised by the Department of Teacher Education, School of Humanities and Education, Nagaland University, Kohima Campus, Meriema, Nagaland – 797004.

2. (Azono Nakhro). Presented a paper on "*Promoting Originality in the classroom: Exploring Elementary School Teachers Creativity Fostering Behaviour"* in the Two-Day National Seminar on Innovations in Future Education System: India 2.0, on 10th & 11th August 2023, Sponsored by the Indian Council of Social Science Research (ICSSR), New Delhi, Organised by Modern Institute of Teacher Education, Kohima, Nagaland

NAGALAND UNIVERSITY

(A Central University Established by an Act of Parliament, 35/1989)

Department of Teacher Education
School of Humanities & Education
Kohima Campus, Meriema - 797 004

Certificate of Participation

This is to certify that Mr./Mrs./Ms./Dr./Prof. Azano Nakhro

Department of Teacher Education, Nagaland University, Kohima

has participated/Presented a paper entitled Fostering Creativity in Education : National Education Policy 2020

in the **National Seminar on Social Transformation in India 2.0 and NEP-2020** held from 21st to 22nd April, 2022 organised by Department of Teacher Education, School of Humanities & Education, Nagaland University, Kohima Campus, Meriema, Nagaland-797 004.

Prof. A.K. Mishra	**Prof. Bani Brauvi**	**Prof. P.K. Pattnaik**	**Dr. [illegible]**
Pro-Vice Chancellor	*Dean*	*Head*	*Convener*
Kohima Campus	*School of Humanities and Education*	*Dept. of Teacher Education*	



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Azadi Ka Amrit Mahotsav

G20

Two Day National Seminar on

INNOVATIONS IN FUTURE EDUCATION SYSTEM : INDIA 2.0

Sponsored by Indian Council of Social Science Research (ICSSR), New Delhi.

Certificate

This is to Certify that Mr. /Ms. /Mrs. /Dr. Azono Naulina Ph. D Scholar, Dept of Teacher Education, Nagaland University, Kohima has actively participated / presented Promoting Originality in the Classroom: Exploring Elementary School Teachers Creativity Fostering Behaviour in the Two Day National Seminar on Innovations in Future Education System: India 2.0 Sponsored by Indian Council of Social Science Research (ICSSR), New Delhi, Organized by Modern Institute of Teacher Education (MITE), Kohima, Nagaland on 10th & 11th August 2023.

Dr. R. Udhaya Mohan Babu
Convener and Organizing Secretary

Dr. Kate Dandesh Kumar
Principal