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Enhancing creative teaching behavior of vocational school teachers: structural equation modeling analysis

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ABSTRACT

Creative teaching behavior (CTB) is an innovative and creative teaching approach that is relevant in facing the dynamics of vocational education, which continues to develop, especially to produce creative students. Many studies examine the important role of CTB. However, limited information still discusses how to improve CTB by involving important factors such as creative climate, school support, and creative teaching self-efficacy. This study involved 400 teachers from 25 vocational high schools in civil engineering in Central Java Province, and data analysis using the structural equation modeling (SEM) (Smart-PLS) method. The study results revealed that CTB was proven to be influenced positively and significantly by school support and creative teaching self-efficacy. Also, creative teaching self-efficacy partially mediates the effect of creative climate and school support on CTB. The results of this study provide important implications for vocational school teachers to develop creative teaching skills in schools. Building a creative culture in schools, proactive school support and increasing teacher self-confidence are essential steps in creating a dynamic and innovative learning environment in vocational schools.

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1. INTRODUCTION

Mastery of creative thinking skills will become increasingly important due to technological advances, globalization, and the complexity of challenges faced by society [1], [2]. Creative thinking is one of the 21st-century skills that teachers and schools should focus on [3]–[5], especially in vocational high schools. In a constantly changing world, students who think creatively can face unexpected situations with flexibility and innovation [1], [3], [6]. By thinking creatively, individuals can become effective problem solvers and innovators who can overcome complex challenges in the future. Therefore, preparing vocational school students to have creative thinking skills and create innovative products is an important goal of the education and training process [7].

The process of cultivating students' creative thinking skills is very dependent on the quality of teaching carried out by the teacher. The basic question is, do teachers have creative teaching behavior when they teach? The important role of creative teaching behavior (CTB) for teachers cannot be underestimated, especially in facing future technological developments [8]–[11]. Teachers who apply creative teaching

approaches can challenge students to think outside conventional boundaries, create an inspiring learning environment, and encourage students' abilities to solve problems in innovative ways [12]. Previous studies state that teachers' CTB can increase students' capacity to generate innovative ideas and solve problems [13]–[15].

Teacher CTB refers to cultivating intentional creative thinking and behavior in students through educational methods [16]. Teachers with CTB can be a catalyst for cultivating these skills, allowing students to explore new ideas, develop innovative projects, and learn through practical experiences. Various studies have been conducted to analyze factors related to teacher CTB. Previous studies have identified several factors related to teacher CTB; these factors include creative teaching self-efficacy [8], [9], [17], principals' transformative leadership and school innovative climate [15], [18], and school support [8], [17].

Although scholars have devoted much attention to teaching creativity, many obstacles prevent teachers from implementing CTB effectively in their practice [12], [19]. Teachers' implementation of creative teaching often faces several problems that can affect its effectiveness. One of the main problems is the pressure to achieve academic targets, which often encourages teachers to prioritize traditional teaching approaches and focus on mastering standardized exam material [20]. This can hinder teachers from providing space for creative activities that require more time and have results that may not be immediately measurable. In addition, a lack of resources and support from educational institutions can also be an obstacle, such as limited access to special training for creative teaching or a lack of support in the form of adequate facilities or learning materials [17].

In addition, previous studies discussing CTB have limitations in connecting in an integrated manner between environmental factors and creative teaching self-efficacy. Therefore, it is important to analyze the factors that encourage CTB development for teachers, including environmental factors (for example, creative climate and school support) and creative teaching self-efficacy. Previous studies state that school climate fosters CTB [10]. A positive, inclusive, and supportive school environment provides a solid foundation for educators to develop and implement creative teaching strategies.

Meanwhile, other studies prove that school resources and support influence teachers' CTB [17]. Strong school support, such as specialized training, adequate learning resources, and collaboration platforms between teachers, can significantly encourage educators to adopt more creative teaching methods. Another important factor that plays a role in encouraging increased creative teaching behavior for teachers is creative teaching self-efficacy [8], [17].

Although the importance of school climate, school support, and creative teaching self-efficacy in fostering creativity and facilitating teacher growth has been acknowledged, a shortage of theories examines how creative climate, school support, and creative teaching self-efficacy influence CTB for vocational school teachers. This study examines the effects of creative climate, school support, and creative teaching self-efficacy on CTB for vocational school teachers. This study also investigates the mediating role of creative teaching self-efficacy on the effect of creative climate and school support on CTB for vocational school teachers.

2. LITERATURE REVIEW

2.1. Creative teaching behavior for teacher

CTB is an innovative and dynamic approach educators use to foster a learning environment that stimulates and fosters creative thinking among students [21]. According to Lin [22], the conceptual framework of CTB is explained in another term: "creative pedagogy". Creative pedagogy consists of three components: "creative teaching", "teaching for creativity", and "creative learning". "Creative teaching" refers to the use of inventive, dynamic, and innovative methods that support the development of "teaching for creativity" [23]. The concept of "creative learning" emphasizes the exchange of creative efforts and actions between educators and learners and the distinct characteristics of 'joy', 'supportive/resourceful context', and collaboration [22]. The advancement of innovative teaching methods highlights the importance of creating an atmosphere that fosters creativity and serves as a model for creative teaching. This approach is essential to encourage the development of creative thinking skills and knowledge acquisition through creative learning.

CTBs encompass actions that foster independent learning, cooperation, and the establishment of a solid basis for divergent thinking. They promote students' allocation of ample time to formulate ideas and think flexibly, as well as encourage self-evaluation, active listening, and questioning. Additionally, these behaviors aid students in developing the capacity to handle frustration and failure [24]. Soh [25] created a nine-factor structure for CTB, based on Cropley's [24] approach. The factors encompassed in this list are independence, integration, motivation, judgment, flexibility, evaluation, questions, opportunity, and frustration. So, it can be concluded that CTB emphasizes cultivating originality, problem-solving skills, and the ability to think outside conventional boundaries. Previous studies used four dimensions to measure

teachers' CTB: autonomous learning, creative thinking, characteristics/motivation, and environment/opportunity [26].

In vocational education, especially vocational high schools, fostering CTB is crucial to instilling students' creative thinking abilities. As the future skills landscape evolves and becomes increasingly complex, creative thinking becomes a critical asset [6], [27]. Creative teaching methods prepare students with practical skills and equip them with the capacity to adapt to new challenges, envision innovative solutions, and navigate the complexities of a rapidly changing professional world. Therefore, integrating CTB in vocational education is very important to empower students to develop in a future that demands adaptability, ingenuity, and originality.

2.2. The role of creative climate on creative teaching behavior

Generally, the term creative atmosphere refers to the internal environment in which new ideas are conceived and nurtured [28]. The concept of creative atmosphere refers to the collective beliefs and opinions held by individuals inside an organization [29]. Yi *et al*. [30] argued that the creative climate refers to individuals' perceptions and beliefs regarding the qualities of the work environment. These perceptions and beliefs influence people's expectations about interactions and the outcomes of their creative efforts. The creative climate in the educational context refers to a conducive atmosphere and supportive culture in educational institutions that encourages and fosters creativity among educators. Scholars have studied the importance of fostering a creative work environment that promotes a conducive culture to increase organizational effectiveness proposed by various scholars [31], [32]. In school, building a creative climate involves promoting an environment where teachers feel empowered to experiment with innovative teaching methods, share ideas openly, and collaborate with their colleagues. This climate is characterized by a culture that values curiosity, risk-taking, and continuous learning, creating a space for teachers to explore and refine their CTB.

Many studies have reviewed climate's role in forming individual creativity [15], [33]–[35]. Previous research has confirmed that an organization's climate of creativity and innovation significantly influences innovative work behavior and company performance [36], [37]. According to Amabile [38], the creative atmosphere in an organization can influence the level of work creativity its members show. A stimulating organizational atmosphere fosters creativity among employees, leading to the generation of innovative ideas and contributing to the organization's overall growth and effectiveness. At the same time, this will enable the efficient implementation of recently developed innovative concepts [39]. Additionally, Vejian *et al*. [40] revealed that school creative climate is a factor that influences the development of school creativity.

To foster creativity, create an environment that combines challenge, independence, resources, comfortable work group elements, supervisory encouragement, and organizational support for individual creative endeavors [41]. In the school context, the importance of a creative climate in fostering CTB among vocational school teachers lies in its ability to improve the overall quality of education. When teachers feel supported in taking creative risks and exploring unconventional methods, they are more likely to develop and implement engaging lessons that meet students' unique needs and interests. Thus, a creative climate is not only a facilitating background but also a catalyst that encourages teachers to develop more creative and adaptive teaching approaches, positively impacting students' learning experiences. Hypothesis 1: creative climate has a significant influence on the CTB of vocational school teachers.

2.3. School support dan creative teaching behavior

School support is important in influencing CTB among vocational school teachers. Previous studies have shown that school support helps encourage increased CTB of teachers [8], [17]. When schools provide adequate support for creative teaching initiatives, this creates an environment where teachers feel encouraged and empowered to implement innovative approaches in their pedagogical practices. This support can take many forms, including professional development opportunities, resources for implementing creative teaching methods, and recognition for teachers who demonstrate exemplary creativity in the classroom [17]. Schools that prioritize and invest in these support systems send a clear message to vocational school teachers that their creative efforts are valued and important to the overall mission of education.

According to Huang *et al*. [9], schools must support teaching creativity because teachers need a positive attitude and good performance. The creativity of colleagues and the availability of equipment and resources that support teaching for students. Creativity is all factors that contribute to teachers' ability to teach creativity [16]. In addition, school support significantly impacts the sustainability of CTB. Teachers are more likely to continue incorporating creative methods into their teaching strategies when they receive ongoing encouragement and support from the school administration. This support can include providing time for collaboration, recognizing the challenges associated with experimentation, and fostering a culture that celebrates creative success. Ultimately, a school environment that actively supports CTB not only increases the professional growth of vocational school teachers but also contributes to developing a dynamic and

innovative learning atmosphere, which benefits both teachers and students. Hypothesis 2: school support has a significant influence on the CTB of vocational school teachers.

2.4. The mediating role of creative teaching self-efficacy

Bandura [42] introduced the concept of self-efficacy, which he defined as the "belief in one's capability to effectively plan and execute a sequence of actions required to accomplish a specific goal". Creative self-efficacy refers to the belief in one's ability to generate innovative outcomes, and it is an expansion of self-efficacy within the domain of creativity [43]. Employees' creative self-efficacy is a measure of their beliefs and views about their ability to achieve creative outcomes. To be more precise, researchers have broadened the concept of creative teaching self-efficacy, which refers to teachers' capacity to promote student creativity in the classroom [44]. This refers to the teacher's views and assessments of his creative teaching abilities.

The correlation between a strong sense of self-efficacy and active task engagement is also apparent in the school environment. Scholars have discussed creative teaching self-efficacy a lot [8], [9], [17]. A study examining three leading educators revealed that self-confidence, particularly in developing creativity, was important in fostering positive attitudes and effectiveness in teaching creativity [45]. Self-efficacy is important in understanding attitudes and practices about teaching divergent thinking skills [46]. Thus, we believe that creative teaching self-efficacy has an important influence on the CTB of vocational school teachers.

In addition, self-efficacy is commonly recognized as a mediator variable [6], [42]. For instance, Shi *et al*. [8] conducted a study that demonstrated that creative teaching self-efficacy acts as a mediator between social capital and CTB. The findings suggest that self-efficacy plays a role in mediating the relationship between contextual factors and an individual's creative behavior. Thus, this study posits that creative teaching self-efficacy can serve as a mediator in the correlation between environmental characteristics (creative climate and school support) and the CTB exhibited by vocational school teachers.

Hypothesis 3: creative teaching self-efficacy has a significant influence on the CTB of vocational school teachers. Hypothesis 4: creative teaching self-efficacy mediates the relationship between creative climate and CTB of vocational school teachers. Hypothesis 5: creative teaching self-efficacy mediates the relationship between school support and the CTB of vocational school teachers.

Based on the literature analysis we have mentioned, it is evident that enhancing CTB holds significant importance for vocational school teachers. The behavior of creative teaching is determined by three crucial factors: the presence of a creative climate, support from the school, and the individual's belief in their ability to teach creatively (creative teaching self-efficacy). Moreover, the presence of creative teaching self-efficacy plays a crucial role in enhancing the connection between external factors (such as a creative climate and school support) and the actual implementation of CTB. Figure 1 displays the conceptual model of this investigation.

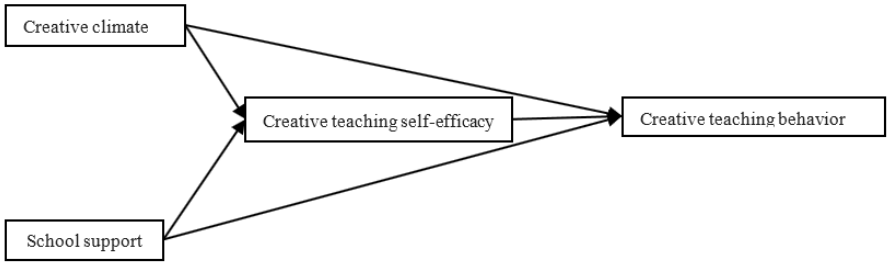

Figure 1. The conceptual model for developing CTB

3. METHOD

3.1. Participant

This study used a cross-sectional quantitative design. A random integer sample of 400 teachers from 25 vocational high schools in Central Java Province was selected. Based on gender, 208 female teachers (52%) and 192 male teachers (48%) completed the questionnaire completely. In addition, based on educational background, the majority of respondents had a bachelor's degree (74%), and the remainder had a master's degree (20.25%) and a doctoral degree (5.75%). The distribution of data from respondents to this study is shown in Table 1.

Table 1. Background of participants

Attribute	Categories	N	%
Gender	Male	208	52
	Female	192	48
Educational Background	Bachelor Degree	296	74
	Master Degree	81	20.25
	Doctoral Degree	23	5.75

3.2. Questionnaire

3.2.1. Creative climate

Teachers' perceptions regarding creative climate were used as a reference to the previous study's creative climate questionnaire [47]. The original questionnaire consisted of 50 items and nine dimensions. This study uses the five dimensions that are most relevant to the aims of this study, namely challenge/involvement (7 items, for example, the work atmosphere here is filled with energy), freedom (7 items, for example, people here make choices about their work), trust/openness (3 items, for example, people here do not steal each other's idea), idea time (6 items, for example, time is available to explore new ideas), and idea support (5 items, for example, people usually feel welcome when presenting new ideas here). A 5-point Likert-scale measures creative climate ranging from 1 (strongly disagree) to 5 (strongly agree).

3.2.2. School support

The assessment of teachers' opinions of school support aims to investigate the degree to which the school prioritizes creative approaches to learning. For this study, we employed the school support questionnaire created by Huang *et al*. [17]. This questionnaire comprises seven items: “The principal encourages teachers to participate in training courses related to creative teaching". Teachers were instructed to evaluate the items using a 5-point scale, where 1 represented significant disagreement and 5 represented strong agreement.

3.2.3. Creative teaching self-efficacy

This study used the creative teaching self-efficacy questionnaire developed by Lin *et al*. [44] to evaluate instructors' capacity to promote creativity in their instructional practices. The questionnaire comprises 15 items, which encompass phrases such as "I can guide students to use creative thinking strategies to develop their creativity". The questionnaire consists of three dimensions: self-affirmation, negative self-awareness, and anti-stress beliefs. The item measurement was assessed using a 5-point Likert-type scale, where respondents could indicate their level of agreement on a scale from 1 (strongly disagree) to 5 (strongly agree).

3.2.4. Creative teaching behaviour

The questionnaire about teacher CTB uses a previous study questionnaire as a reference [26]. The CTB questionnaire has 14 items consisting of four dimensions, namely autonomous learning (4 items, for example, I provide instruction to students on methods to improve learning), creative thinking (4 items, for example, I explain to students about obstacles and frustrations that are part of the process of creativity), characteristics/motivation (4 items, such as I provide challenging and exciting materials to my students), and environment/opportunity (2 items, for example I encourage students to communicate with other group members using positive language). Each item is measured on a 5-point Likert-type scale, ranging from 1 (never does this) to 5 (always does this).

3.3. Data analysis

The hypotheses are analyzed by the application of structural equation modeling (SEM). A study employing SEM is conducted using analysis of moment structures (AMOS) 18 software. The study conducted using AMOS involves two main components: testing the measurement model and testing the structural model in SEM. The measurement model for this inquiry was evaluated by confirmatory factor analysis (CFA) at a significance level of 0.05 or above [48]. The current investigation employed path analysis inside the SEM framework to examine the hypothesis. The hypothesis is accepted when the significance value is below 0.05, as stated by Hair *et al*. [49].

4. RESULTS AND DISCUSSION

4.1. Questionnaire validity

Before testing the hypothesis, it is essential to first assess the validity and reliability of the questionnaire. Utilize SPSS's correlation test to ascertain the validity of the study. The reliability test,

meanwhile, relied on SPSS's Cronbach's alpha. From 0.703 to 0.852, the study's acquisition validity values included the following topics: creative climate, social support, creative teaching self-efficacy, and CTB. That is, we assert the validity of every item on every variable. Table 2 shows that Cronbach's alpha values ranged from 0.776-0.831, indicating good reliability for each variable. Since each item has demonstrated sufficient reliability and validity, they can all be utilized for more research.

Table 2. Validity and reliability of the questionnaire in this study

Variables (N)	Validity	Reliability
Creative Climate	0.703** ~ 0.788**	.790
School Support	0.727** ~ 0.811**	.800
Creative Teaching Self-Efficacy	0.760** ~ 0.827**	.776
Creative Teaching Behavior	0.744** ~ 0.852**	.831

Note. **=Significant (p=0.01)

4.2. Structural equation modeling analysis using analysis of moment structures

The study's hypothesis is tested via AMOS 18-based SEM analysis. The primary objective of SEM is to investigate the correlation between internal and external components inside a model that aims to elucidate the development of CTB. In this study, we tested a model for forming teachers' CTB which is shaped by external factors (creative climate and school support) and internal factors (creative teaching self-efficacy). Figure 2 shows the results of testing the model that aims to shape the teachers' CTB. The findings of this investigation demonstrate that our SEM model effectively confirms our hypothesis. The model fit analysis indicates that a model has been achieved that satisfies the requirements for a high-quality model (Cmin/df=3.602, GFI=0.862, IFI=0.919, TLI=0.900, CFI=0.907, and RMSEA=0.065, refer to Figure 2).

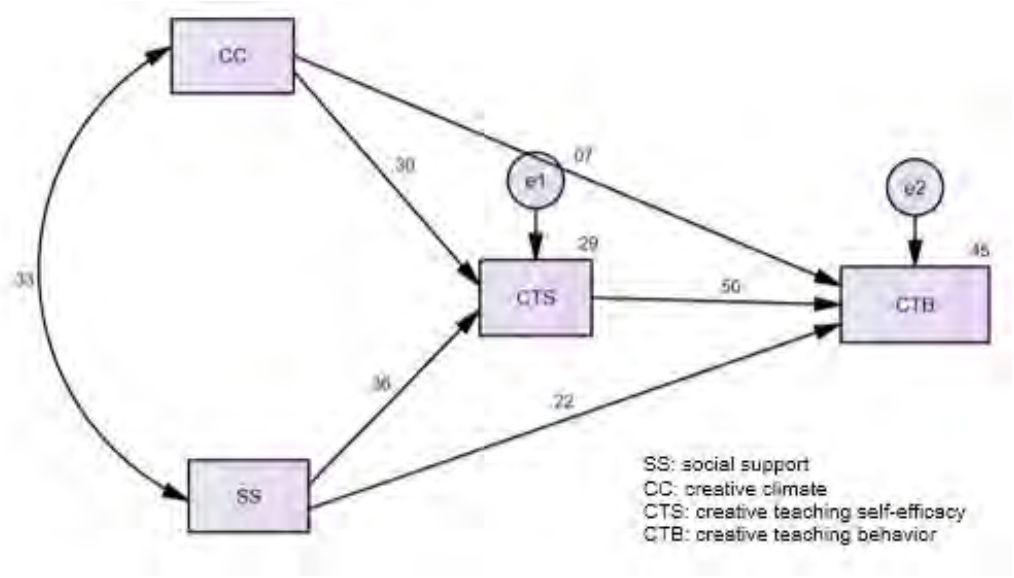

Figure 2. Measurement model of teachers' CTB

Table 3 displays the results of the SEM investigation conducted using AMOS. The initial hypothesis aims to examine the impact of creative climate on the creative teaching behavior of vocational school teachers. The obtained score of 0.072 (p-value=0.081) does not support the acceptance of the first hypothesis, indicating that creative climate does not significantly influence the creative teaching behavior of vocational school teachers. Additional study indicates that social support has a favorable impact on the creative teaching behavior of vocational school teachers. The estimated effect size is 0.223, and the p-value is statistically significant. As a result, the second hypothesis is accepted. Also, the third hypothesis, which suggests that creative teaching self-efficacy has a beneficial impact on the creative teaching behavior of vocational school teachers, has been substantiated (estimate=0.500, p-value=***, a third hypothesis is accepted).

Table 3. The results of the path analysis among variables

Path			Estimate	S.E.	C.R.	P-Value
SS	--->	CTS	0.361	0.05	8.068	***
CC	--->	CTS	0.296	0.046	6.615	***
CTS	--->	CTB	0.500	0.043	11.345	***
CC	--->	CTB	0.072	0.042	1.744	0.081
SS	--->	CTB	0.223	0.046	5.243	***

Note. ***=Correlation is significant at the 0.001 level; SS: social support; CC: creative climate; CTS: creative teaching self-efficacy; CTB: creative teaching behavior

Moreover, this study examined how creative teaching self-efficacy acts as a mediator between the independent factors (creative climate and social support) and the dependent variable (CTB). The findings of investigating the role of mediation using Amos 18 are presented in Table 4. The purpose of testing the fourth hypothesis is to examine the role of creative teaching self-efficacy in mediating the link between creative climate and CTB among vocational school teachers. The mediation test yielded an estimated score of 0.148 and a significance value of 0.011. The result indicates that the belief in one's ability to teach creatively effectively influences the connection between the environment that fosters creativity and the actual creative teaching practices of vocational school teachers. As a result, the fourth hypothesis is confirmed. The fifth hypothesis is to examine the function of creative teaching self-efficacy in moderating the link between school support and the CTB of vocational school teachers. The mediation analysis conducted using the bootstrapping method yielded an estimated score of 0.181 (p-value=0.005). This indicates that creative teaching self-efficacy was found to mediate the relationship between school support and CTB among vocational school teachers. As a result, the fifth hypothesis was accepted.

Table 4. The result of bootstrapping in testing the mediator

Variables	Path	CC → CTB	SS → CTB	CTS → CTB
Standardized Direct Effect	Estimate	0.072	0.223	0.500
	P-Value	0.049	0.006	0.014
Standardized Indirect Effect	Estimate	0.148	0.181	
	P-Value	.011	0.005	
Standardized Total Effect	Estimate	.221	.404	.500
	P-Value	.011	.007	.014

Note: SS: social support; CC: creative climate; CTS: creative teaching self-efficacy; CTB: creative teaching behavior

4.3. Discussion

This study focuses on exploring the antecedent factors of vocational school teachers' CTB, including creative climate, school support, and creative teaching self-efficacy. In addition, this study also investigates the mediating role of creative teaching self-efficacy on the relationship between the independent variables (creative climate and school support) and the dependent variable (CTB). The findings of this study reveal that the CTB of vocational school teachers is influenced by school support and creative teaching self-efficacy. Additionally, creative teaching self-efficacy successfully mediates the relationship between creative climate, CTB, and school support and CTB of vocational school teachers.

4.3.1. The antecedent factors of creative teaching behavior of vocational school teachers

Testing the first hypothesis proves that creative climate does not significantly influence CTB. Although a creative climate is expected to positively influence CTB for vocational school teachers [36], [37], individual factors such as teacher motivation and their pedagogical skills have a greater impact on CTB. In the context of this study, it is possible that the creative climate has not been formed positively, so it does not significantly impact the formation of teachers' CTB. In essence, a creative climate encourages teachers to continue to follow developments in the latest pedagogical approaches and instills a contagious enthusiasm for learning among students. By fostering a culture of creativity, schools empower teachers to become lifelong learners and innovators, ensuring that they can adapt to the ever-evolving vocational education landscape and effectively impart essential skills to students to prepare themselves for the complexities of the future world of work. School management needs to create a creative atmosphere in schools to foster creative behavior in teachers [41].

Another finding of this study is that CTB is significantly influenced by school support. This study strengthens previous studies, which stated that positive school support would increase teachers' CTB [8], [17]. A supportive school environment fosters an atmosphere where teachers feel encouraged to experiment with innovative teaching methods, take risks, and continually look for ways to improve the learning experience for their students. Additionally, schools that actively invest in professional development programs

that focus on creativity and provide resources for teachers to implement creative approaches experience significant increases in CTB among their faculty.

According to Huang *et al*. [17], school support can take the form of professional development opportunities, resources for implementing creative teaching methods, and recognition for teachers who demonstrate exemplary creativity in the classroom. Schools must prioritize and invest in teacher professional development opportunities to encourage CTB. Teacher professional development and ongoing support can empower teachers with the skills and confidence necessary to incorporate creative elements into learning. In addition, schools must provide adequate resources, both in terms of time and materials, to enable teachers to implement and refine creative teaching approaches.

Another antecedent factor that shapes the CTB of vocational school teachers is creative teaching self-efficacy. Self-efficacy in creative teaching, or teachers' confidence in their ability to apply creative teaching strategies effectively, is an important factor that shapes CTB among vocational high school educators. The findings of this study are relevant to previous studies [45], [46], which showed a strong positive correlation between teachers' creative teaching self-efficacy and their actual implementation of creative teaching practices. When teachers are confident in their capacity to design and implement innovative learning plans, they are more likely to overcome obstacles and experiment with new pedagogical approaches. This self-confidence becomes a motivating factor that encourages educators to explore creative methodologies adapted to vocational education's unique needs and contexts.

4.3.2. The mediating role of creative teaching self-efficacy: creative climate, school support and creative teaching behavior

Creative teaching self-efficacy is important in mediating the relationship between creative climate and CTB among vocational high school educators. When teachers perceive a school climate as supportive and innovative, this positively influences their creative teaching self-efficacy, instilling confidence in their ability to implement creative teaching strategies effectively. This high self-efficacy mediates between a conducive creative climate and the actualization of CTB. Research conducted by Özen [50] supports this mediating role, showing that teachers who feel confident in their creative teaching abilities are more likely to translate the positive influences of the external environment into concrete and innovative pedagogical practices in their classrooms.

Likewise, creative teaching self-efficacy is an important mediator between school support and CTB. School support, which includes factors such as professional development opportunities, resources, and a culture that values creativity, can significantly impact teachers' creative teaching self-efficacy. When teachers receive support and training, their confidence in their ability to implement creative teaching methodologies increases. This increased self-efficacy, in turn, bridges the gap between the support provided by the school and the actualization of creative teaching behavior. A study by Shi *et al*. [8] underscored the mediating role of creative teaching self-efficacy, emphasizing that belief in one's ability to teach creatively is a key mechanism through which school support influences the implementation of innovative teaching strategies. Therefore, schools aiming to increase CTB should create a supportive environment and invest in programs that increase teachers' creative teaching self-efficacy and recognize it as an important mediator.

The implications of research results regarding the role of creative climate, school support, and creative teaching self-efficacy in increasing CTB of vocational school teachers provide valuable insights regarding vocational education development strategies. These findings indicate that creating a creative climate in schools, supported by progressive school support, can positively influence creative teaching self-efficacy and, in turn, the CTB of vocational school teachers. Therefore, vocational schools can design policies and programs that focus on establishing a supportive, creative climate, including training and professional development that encourages creativity in teaching. In addition, the importance of increasing teachers' creative teaching self-efficacy also emerged as an area that must be considered. By increasing teachers' self-confidence in their ability to adopt creative teaching strategies, schools can accelerate the implementation of innovative teaching practices. By considering these findings, educational policies and professional development practices can be designed to provide more focused support, create an environment that stimulates creativity, and increase teacher self-efficacy as strategic steps to improve the quality of education in vocational high schools.

5. CONCLUSION

The industry claims that creative thinking skills are skills needed to face the dynamics of technological development in the future. Many studies highlight the cultivation of creative thinking skills, but many of these studies focus on students, while teachers' CTB has not been studied much. Therefore, this study aims to determine the factors that precede CTB, which include creative climate, social support, and

creative self-efficacy. This study found that the CTB of vocational school teachers was positively influenced by school support and creative teaching self-efficacy. Additionally, creative teaching self-efficacy is proven to mediate the relationship between creative climate and CTB of vocational school teachers. The mediating role of creative teaching self-efficacy is also shown in the relationship between school support and CTB. Higher teacher confidence in creative teaching abilities will encourage an increase in the role of creative climate and school support in the CTB of vocational school teachers.

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