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Original article

Promoting Creative Professional Behavior of Future Educators: The Role of Social Capital, Motivation and Self-Efficacy

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Abstract

Introduction. Creative teaching behaviour for vocational teacher candidates has increased students' creative skills. So, it is natural for scholars to pay full attention to how to shape creative teaching behaviour for teachers and candidates. Therefore, this study aims to explore the role of social capital on the creative teaching behaviour of teachers by involving motivation and self-efficacy as mediators.

Materials and Methods. This study involved university students who were involved in a teacher education program. Two hundred twenty-eight campus students in a teacher education program at a state university in Yogyakarta-Indonesia participated in this study. Structural equation modelling analysis is used to prove the hypothesis.

Results. The study results reveal that teacher candidates' creative teaching behaviour is influenced by social capital, motivation, and self-efficacy. In addition, teacher candidates' strength of social capital also predicts motivation and beliefs related to their teaching abilities. This study also proves that motivation and self-efficacy act as mediators that significantly mediate the effects of social capital on creative teaching behaviour for teacher candidates.

Discussion and Conclusion. The results of this study provide important implications for university lecturers involved in teacher education programs to strengthen social capital, motivation, and self-efficacy for teacher candidates through the teaching process.

Keywords: creative teaching behaviour, social capital, motivation, self-efficacy, teacher candidate

Conflict of interest: The authors declare no conflict of interest.

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Оригинальная статья

Содействие творческому профессиональному поведению будущих педагогов: роль социального капитала, мотивации и самоэффективности

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Аннотация

Введение. Креативное профессиональное поведение будущего педагога повышает творческие способности учащихся. Во многих источниках подчеркивается важная роль социального капитала, мотивации и самоэффективности в формировании индивидуального творческого поведения. Цель статьи – анализ роли социального капитала в творческом профессиональном поведении педагогов с привлечением мотивации и самоэффективности в качестве посредников.

Методы и материалы. В исследовании были задействованы 228 студентов государственного университета в Джокьякарте – участников программы подготовки учителей. Для подтверждения гипотезы применялся анализ моделирования структурными уравнениями (SEM).

Результаты исследования. Результаты исследования показали, что на творческое профессиональное поведение будущего педагога влияют социальный капитал, мотивация и самоэффективность. Уровень социального капитала будущих учителей предсказывает мотивацию и убеждения, связанные с их способностями к обучению. Настоящее исследование доказывает, что мотивация и самоэффективность выступают в качестве посредников, которые значительно опосредуют влияние социального капитала на творческое профессиональное поведение будущего педагога.

Обсуждение и заключение. Сделанные авторами выводы будут полезны преподавателям вузов, участвующих в программах подготовки учителей, а также могут быть использованы для укрепления социального капитала, мотивации и самоэффективности будущих педагогов в процессе обучения.

Ключевые слова: творческое профессиональное поведение, социальный капитал, мотивация, самоэффективность, будущий педагог

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Introduction

Policies worldwide emphasize the need to encourage student creativity in schools¹ [1; 2]. In addition, many countries' education systems emphasize encouraging students' innovative thinking to spur economic development [3]. This condition causes one of the main goals of education in many countries to train creative talents because of the rapid progress of

science and technology and the global economy. National education programs and curricula have emphasized students' creative problem-solving skills to prepare them for the complexities of global work and the social scene [4]. In addition, creative thinking skills are one of the much-needed future skills² [5]. Therefore, it is only natural that teachers currently expect to be able to foster the creative

¹ Kemendikbud. Model Pembelajaran Teaching Factory di SMK Meningkatkan Sebesar Tujuh Persen. 2022. Available at: <https://www.kemdikbud.go.id/main/blog/2022/01/model-pembelajaran-teaching-factory-di-smk-meningkat-sebesar-tujuh-persen> (accessed 24.03.2023).

² Barbousas J. Teaching in the 21st Century: Challenges, Key Skills and Innovation. 2019. Available at: <https://www.latrobe.edu.au/nest/teaching-in-the-21st-century-challenges-key-skills-and-innovation> (accessed 24.03.2023); Trilling B., Fadel C. 21st Century Skills: Learning for Life in Our Times (First Ed.). San Francisco: Jossey-Bass; 2009.



potential of students at various levels of education³ [6]. Enhancing creativity must start in schools, and it is the role of educators to teach and encourage creativity among students. Teachers who can rate creative teaching behavior will be able to impact increasing innovative ideas and students' problem-solving skills [7].

Past studies have tried to discover what types of teaching and learning help students to be creative [8–10]. Much of this research explains why creative teaching is important to help students develop creative thinking skills and why teachers must generate and use new ideas in their lessons [6; 11; 12]. In this context, it can be understood that the teacher's role is very important to instill creative skills in students through the learning process in the classroom. This means that teachers with creative teaching behavior need to receive important attention to foster creative skills in students.

Theoretically, teachers' creative teaching behavior is their way of trying to help students develop creative ways of thinking or acting [13]. According to current research on creativity in schools, teachers' creative teaching behavior is demonstrated through goal setting and teaching quality, including various teaching and learning methods⁴. These methods include a design thinking approach⁵, problem-solving and cooperative learning, encouraging emerging thoughts and active participation from students, respecting the uniqueness and diversity of each student, and creating a learning environment and questions that are open to new ideas⁶. So teaching today means moving from traditional to creative thinking and doing things. This demand will help teachers become more professional and creative in transferring knowledge to students.

Empirically, teachers' creative teaching behavior is influenced by various factors. Two dimensions' influence teachers' creative teaching behavior: situational and personal.

Social cognitive theory (SCT) states that behavior is determined by situational and personal dimensions that encourage individuals to do something they want⁷. Of the two dimensions, the personal dimension is considered to have the greatest influence on driving individual behavior⁸. Although the personal dimension is the strongest predictor of individual behavior, the situational dimension is neglected. Personal aspects that scholars have highlighted are related to creative and innovative behavior, for example, motivation [14–16] and self-efficacy [16–18]. Meanwhile, the highlighted situational dimension is social capital [18–20].

Several studies conducted in the workplace have revealed that employees' social capital is a key factor in the success of their creative endeavors [21; 22]. In addition, previous studies stated that individuals with higher levels of social capital are more likely to exhibit creative thinking [23]. In another context, having strong social capital can help drive innovation within companies [20]. Meanwhile, personal factors also have a vital impact on developing individual creative behavior. For example, Shin and Perdue show that intrinsic motivation can drive one's intention to engage in open innovation and positively affects the creativity of the proposed innovation idea [15]. Another personal factor, self-efficacy, is also discussed by scholars as a determining factor for creative behaviour [16]. A study by Kumar et al. revealed that creative self-efficacy plays a role in forming innovative work behaviour [17]. The personal dimension, which includes motivation and self-efficacy, also plays a role in mediating the effects of environmental factors on individual innovative behaviour [16]. Despite widespread recognition of the importance of social capital for encouraging individual creative behavior and advancing the professional development of educators [24], studies on the role of social capital, motivation, and self-efficacy in teachers' creative teaching

³ Barbousas J. Teaching in the 21st Century.

⁴ Lee K.-W., Cho N.-S., Oh E.-S., Kwon J.-E., Chi E.-L., Hong W.-P. A Study on the Improvement of Secondary School Education to Bring Up Students' Creative Talents (KICE Research Report). 2011. Available at: https://www.suneung.re.kr/upload/en_reports/20121210/1355110675135_397.pdf (accessed 24.03.2023).

⁵ Harris A. Creativity and Education. Palgrave Macmillan; 2016.

⁶ Lee K.-W., Cho N.-S., Oh E.-S., Kwon J.-E., Chi E.-L., Hong W.-P. A Study on the Improvement of Secondary School Education to Bring Up Students' Creative Talents.

⁷ Bandura A. Social Foundations of Thought and Action: A Social Cognitive Theory. Prentice-Hall; 1986.

⁸ Bandura A. Self-Efficacy: Toward a Unifying Theory of Behavioral Change. *Psychological Review*. 1977;84(2):191–215.

behavior are still limited. Therefore, this study explores the role of social capital on teachers' creative teaching behavior by involving teachers' motivation and self-efficacy.

Literature Review

Social Capital and Creative Teaching Behaviour. According to Nahapiet and Ghoshal, "social capital" refers to the aggregate of current and potential resources acquired through a network of relationships embedded in an organization. Three components make up social capital: structural, cognitive, and relational [25]. It is this relationship that exists between members that is meant when we talk about the structural aspects of social capital. The cognitive component of social capital consists of the individuals with whom they share information and the regularity with which they do so. The interpersonal relationship individuals have with one another due to their interactions is called the relational dimension of social capital.

In this study, social capital has been defined as the resources embedded in adult-child relationships that contribute to various instrumental and expressive outcomes, including student progress and teacher satisfaction⁹. Current research shows that social capital benefits teachers' professional growth [26–29]. Social capital has become an important lens for examining team efficacy, the resilience of relationships in teacher networks, and the level of trust between teachers and teachers and principals and administrators [30]. In previous studies, many studies of social capital were investigated in the context of student social capital [31]. Meanwhile, social capital for teachers is still limited.

Empirically, social capital is an important aspect of creativity [32]. Individual creativity is influenced by characteristics related to social networks, such as social involvement, support, and cooperation from others [33]. In addition, several studies have demonstrated a beneficial relationship between social capital and inventive or creative performance [21; 22]. For teachers, this social capital is an important resource obtained through their social relations to fulfill their duties as teachers. Without the

support and involvement of social networks, teachers will find it difficult to foster creativity in their students [34]. Trusting and helpful social networks are necessary for creative teaching behavior for teachers [35].

In addition, empirical evidence that states social capital has an important role in forming individual motivation has been discussed in previous studies. For example, Chang and Chuang stated that social capital is important in forming individual motivation [36]. Another study found that social capital exerts a more substantial influence on intrinsic motivation (enjoyment and sustainability) than extrinsic motivation (economic benefits) [37]. Not only that, but social capital also plays a role in strengthening individual self-efficacy. Empirical evidence shows that social capital is important in forming teacher self-efficacy [18]. In different study contexts, other scholars reveal that social capital influences student self-efficacy [38; 39]. Thus, we believe that social capital plays an important role in forming motivation and self-efficacy and increasing creative teaching behavior for teachers.

H1: Social capital has a positive influence on creative teaching behavior for teacher candidates.

H2: Social capital has a positive influence on motivation for teacher candidates.

H3: Social capital has a positive influence on self-efficacy for teacher candidates.

The Role of the Personal Dimension: Motivation and Self-Efficacy. As previously explained, social capital is not the only factor influencing individual creative behavior; there are personal factors. Existing literature studies highlight motivation and self-efficacy as personal dimensions that predict creative behaviour [14; 18; 40]. Motivation is thought to explain "why people decide to do something, how long they will continue to do it, and how hard they will try to do it". Motivated people are more committed to what they are doing than people who don't care enough to try [16; 41], and this idea of motivation also applies to teachers [14]. So it is not surprising that there has been much interest in teacher motivation over the years. More and more researchers are using social cognitive

⁹ Coleman J.S. Social Capital in the Creation of Human Capital. *American Journal of Sociology*. 1988;94:95–120. Available at: <http://www.jstor.org/stable/2780243> (accessed 24.03.2023).



motivation theory to study the dynamics of teacher motivation [42–44].

The study of teacher motivation is important because if teachers are motivated to teach creatively, students will be motivated to be creative. Empirically, motivation is important in fostering individual creative beliefs [14]. Also, an individual's intrinsic motivation can drive one's intention to engage in open innovation and positively affect the creativity of the proposed innovation idea [15]. Meanwhile, different results state that student achievement motivation does not significantly correlate with creative writing performance [41]. Xiang et al. revealed that achievement motivation partially mediates the relationship between the clinical practice environment and innovative behaviour [16]. In this context, we also believe that the context of student motivation can be generalized to teachers. That is, teacher motivation can influence their creative teaching behavior and mediate the relationship between social capital and teacher creative teaching behavior.

H4: Motivation has a positive influence on creative teaching behavior for teacher candidates.

Another personal factor that is considered to play an important role in creating a teacher's creative teaching behavior is self-efficacy. The term "self-efficacy" was first used by Bandura¹⁰. Its definition is that a person can organize and execute actions necessary to produce certain achievements. Self-efficacy relates to a person's views and beliefs about their skills and their ability to mobilize these skills to succeed in certain tasks successfully. Self-efficacy can be increased by the following four factors: mastery experiences, vicarious experiences, social persuasion, and emotional states¹¹. Self-efficacy is related to behavior and good performance, although the correlation is stronger in the laboratory¹². Research shows that the greater the confidence of individuals in their knowledge and abilities, the greater their investment and persistence in even the most difficult tasks¹³. Specifically, self-efficacy is important in fostering creative

teaching behavior for teachers [18]. Also, self-efficacy can significantly mediate the effects of social capital and creative teaching behavior for teachers [18].

H5: Self-efficacy has a positive influence on creative teaching behavior for teacher candidates.

H6: Motivation and self-efficacy significantly mediate the effects of social capital on creative teaching behavior for teacher candidates.

Based on the existing literature has emphasized that situational and personal dimensions influence teachers' creative teaching behavior. The situational dimension in question is social capital. Meanwhile, the personal dimension in question is teacher motivation and self-efficacy. The relationship between the study variables is shown in Figure 1. Figure 1 shows that motivation and self-efficacy mediate the relationship between social capital and creative teaching behavior for teachers.

Materials and Methods

Participants. Two hundred twenty-eight campus students in a teacher education program at a state university in Yogyakarta-Indonesia participated in this study. The college is a public university. The students involved are students who are prepared to become prospective teachers after they graduate. All respondents were informed about the purpose of the study and expressed their willingness (consent) to cooperate. The sample consisted of 39% female students and 61% male students. The students involved are students from the study programs Electrical engineering education, Mechanical engineering education, Automotive Engineering Education, Civil Engineering Education, Culinary Education, and Fashion Education. Their perception data regarding social capital, motivation, self-efficacy, and creative teaching behavior were collected randomly through an online questionnaire developed from the Google Form Platform. The demographics of the respondents to this study are shown in Table 1.

¹⁰ Bandura A. Self-Efficacy: The Exercise of Control. Freeman. 1997.

¹¹ Bandura A. Self-Efficacy : Toward a Unifying Theory of Behavioral Change.

¹² Sadri G., Robertson I.T. Self-Efficacy and Work-Related Behaviour: A Review and Meta-Analysis. *Applied Psychology: An International Review*. 1993;42(2):139–152. <https://doi.org/10.1111/j.1464-0597.1993.tb00728.x>

¹³ Bandura A. Exercise of Personal and Collective Efficacy in Changing Societies. In: Self-Efficacy in Changing Societies. Cambridge: Cambridge University Press; 1995. p. 1–45. <https://doi.org/10.1017/CBO9780511527692.003>

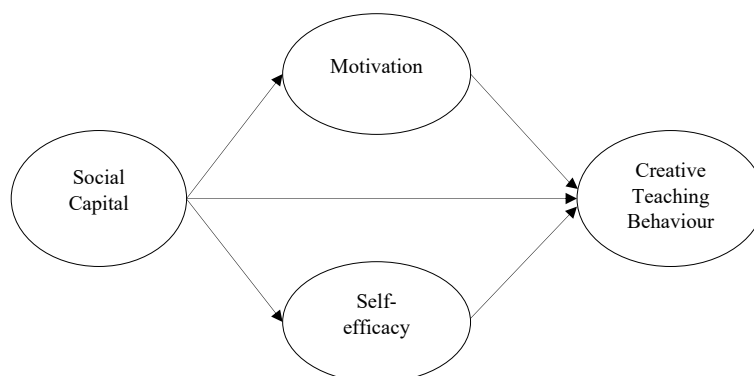


Fig. 1. Conceptual Framework

Source: Hereinafter in this article all figures were made by the authors.

Measures. Student perceptions of social capital were collected using the Social Capital Questionnaire for Adolescent Students [45]. This questionnaire consists of four dimensions: school cohesion, school friendships, neighborhood social cohesion, and school/neighborhood trust. A total of 12 items consist of four school cohesion items (for example, the students at my campus stay together), three school friendships items (for example, the students at my campus have fun together), two neighborhood social cohesion items (for example, I trust my neighbors), and three points of school/neighborhood trust (for example, The lecturer at my campus are sympathetic and give us support).

And finally, students' perceptions of creative teaching behavior were collected using the Creativity Fostering Teacher Index (CFTIndex) [46]. The original questionnaire

had nine indicators, but this study only used four indicators relevant to this study's context: integration, judgment, flexibility, and opportunities. A total of 20 items to measure creative teaching behavior consisting of five integration items (for example, in my class, students have opportunities to share ideas and views), five judgment items (for example, When my students have some ideas, I get them to explore further before I take a stand), five items of flexibility (for example, I encourage students to do things differently although doing this takes up more time), and five items of opportunities (for example, I encourage my students to try out what they have learned from me in different situations). The Likert scale for measuring creative teaching behavior uses 5 Likert scales which consist of always (5), often (4), sometimes (3), rarely (2), and never (1).

Table 1. Characteristics of Respondents

Attribute	Categories	N	%
Gender	Male	139	61
	Female	89	39
Degree	1 st grade	55	24
	2 nd grade	30	13
	3 th grade	63	28
	4 th grade	80	35
Study Program	Electrical engineering education	31	14
	Mechanical engineering education	24	11
	Automotive Engineering Education	46	20
	Civil Engineering Education	68	30
	Culinary Education	37	16
	Fashion Education	22	10

Source: Hereinafter in this article all tables were made by the authors.

Data Analysis. Test the validity and reliability of this study using factor loading processed from SmartPLS. Items are declared valid if they have a factor loading above 0.7¹⁴. Furthermore, testing the fit model on SEM-PLS used the criteria of NFI (Normed Fit Index) > 0.800 and SRMR (Standardized Root Mean Square Residual) < 0.080¹⁵. Hypothesis testing on SmartPLS uses bootstrapping with a resample of 500 and a 90% confidence level. The hypothesis is accepted if it has a significance value below 0.05 [47].

Results

Validity and Reliability. This study uses the Pearson Product Moment test to prove the validity of the questionnaire items for each variable. The results of the Pearson Product Moment test using SPSS version 20 are shown in Table 2. Obtained Pearson Product Moment values for all items ranging from 0.326 to 0.729, and the significance of all of these items are fulfilled. Furthermore, we also tested the reliability of the questionnaire using Cronbach's Alpha test. The Cronbach's Alpha test results are shown in Table 2, which indicates that the questionnaire reliability criteria were met (above 0.80). These results imply that the study questionnaire is feasible and reliable for measuring teacher candidates' social capital, motivation, self-efficacy, and creative teaching behavior.

Paths Analysis of Creative Teaching Behaviour for Teacher Candidate. In the next stage, path analysis is used to test the hypothesis of this study. Before testing the hypothesis, it is necessary to test the model fit on the conceptual model that has been developed. Structural Equation Model (SEM) analysis was used through Amos 18 software to test the fit

model. The results of the fit model are shown in Figure 2, which indicates that the fit model criteria have been fulfilled with the CMIN/DF criteria indicator (χ^2/df) = 4.01, GFI = 0.945, AGFI = 0.947, CFI = 0.934, NFI = 0.932, TLI = 0.901, IFI = 0.934, and RMSEA = 0.077. Referring to these results, the hypothesis testing of this study can be continued.

Table 3 shows the results of standardized regression weights in the direct effect path analysis. First, testing the hypothesis of the influence of social capital on creative teaching behavior for prospective teachers shows an estimated value of 0.237 with a significance value below 0.05 (p-value = 0.001), meaning that the hypothesis is accepted. These findings mean that social capital has a significant positive influence on creative teaching behavior for teacher candidates. Second, the results of testing the second hypothesis reveal that social capital is proven to significantly influence the motivation of teacher candidates (estimate = 0.685; p-value = ***). This study also examines the effect of social capital on teacher candidates' self-efficacy. The results show that social capital also significantly influences teacher candidates' self-efficacy (estimate = 0.625; p-value = ***).

In addition, this study also proves that testing the fourth hypothesis meets the criteria for accepting the hypothesis (estimate = 0.207; p-value = 0.005) and means that motivation positively influences creative teaching behavior for teacher candidates. Another finding, testing the effect of self-efficacy on creative teaching behavior for teacher candidates, obtains an estimated value of 0.325 (p-value = ***); the fifth hypothesis is accepted. This finding means that self-efficacy positively influences creative teaching behavior for teacher candidates.

Table 2. Questionnaire Validity and Reliability

Variables (N)	Validity	Reliability
Social Capital (SC)	0.494** ~ 0.671**	0.836
Motivation (MOT)	0.183** ~ 0.648**	0.852
Self-Efficacy (SE)	0.566** ~ 0.729**	0.844
Creative Teaching Behaviour (CTB)	0.326** ~ 0.688**	0.879

Note. ** – Significant ($p = 0.01$).

¹⁴ Hair J., Black W.C., Babin B.J., Anderson R.E. *Multivariate Data Analysis: A Global Perspective*. 7th. Pearson Prentice Hall; 2010.

¹⁵ Hair J., Hult G.T., Ringle C.M., Sarstedt. *A Primer on Partial Least Squares Structural Equation Modelling (PLS-SEM)*. Sage Publications; 2017.

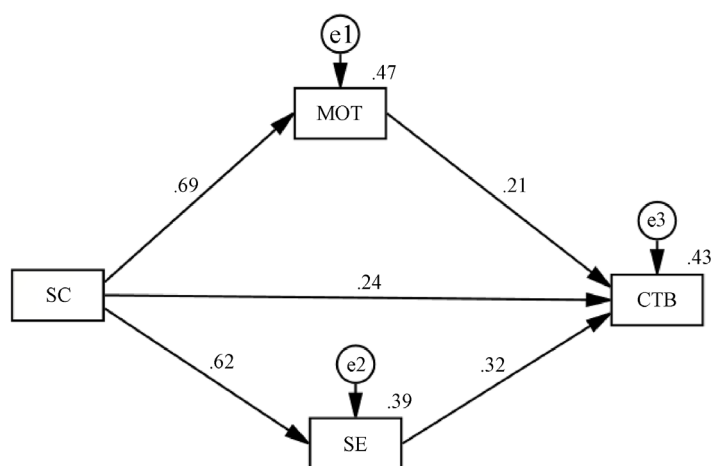


Fig. 2. SEM Analysis Using Amos 18

Table 3. Direct Effect on Path Analysis (Standardized Regression Weights)

Direct Effect	Estimate	S.E.	C.R.	P
SC > CTB	0.237	0.054	3.231	0.001
SC > MOT	0.685	0.033	14.198	***
SC > SE	0.625	0.051	12.075	***
MOT > CTB	0.207	0.079	2.820	0.005
SE > CTB	0.325	0.051	4.752	***

Note. *** – Correlation is significant at the 0.001 level.

In the final step, this study examines the role of mediator motivation and self-efficacy on the effects of social capital on creative teaching behavior for teacher candidates. The results of testing the role of the two mediators using the bootstrapping test are shown in Table 4. Table 4 shows that the estimated value is 0.345 with a p-value of 0.006; the p-value is still below 0.05. This finding can be concluded that the sixth hypothesis is accepted and means that the two mediators, motivation and self-efficacy, significantly mediate the effects of social capital on creative teaching behavior for teacher candidates.

Discussion and Conclusion

The need for present and future students' creative thinking skills has encouraged teachers to have creative teaching behavior. A lot of literature highlights the important role of social capital, motivation, and self-efficacy in the formation of individual creative behavior. Therefore, this study aims to explore the role of social capital on teachers' creative teaching behavior by involving teacher motivation and self-efficacy as mediators. The findings of this study are divided into two, namely, findings related to direct and indirect effects.

Table 4. The Result of Bootstrapping in Testing the Mediator of Motivation and Self-Efficacy

	Path	Social Capital → Creative Teaching Behavior	Lower Bounds	Upper Bounds
Standardized direct effect	Estimate	0.237	0.104	0.362
	P-value	0.018		
Standardized indirect effect (Motivation and Self-efficacy as mediator)	Estimate	0.345	0.245	0.443
	P-value	0.006		
Standardized total effect	Estimate	0.582	0.487	0.654
	P-value	0.020		



In testing the direct effect, first, we found that social capital positively influences teacher candidates' creative teaching behavior. This finding corroborates a previous study conducted by Weixu et al. which showed that social networks (such as social involvement, support, and cooperation from others) affect individual creativity [33]. In addition, these findings are also consistent with previous studies in the context of organizational behaviour [21; 48]. The social network the teacher owns is the social capital needed to carry out creative teaching tasks. The results of the current study show that social capital can explain not only students' school experiences but also the teaching behavior of teacher candidates. In the context of this study, social capital is needed for teacher candidates, especially for university students studying teacher education at universities. That is, aspects of social capital, including campus cohesion, campus friendships, neighborhood social cohesion, and campus/neighborhood trust teacher candidates need to develop when they run university teacher education programs.

According to scholars, creative teaching behavior for teachers requires the involvement of social networks that are mutually trusting and helpful [34; 35]. Teacher candidates with high social capital demonstrate that the campus environment and colleagues can respect and encourage them to engage in creative teaching. In addition, their social environment gives them sufficient trust and attention when faced with the complexity of the teaching system, and ultimately, teacher candidates are encouraged to engage in creative teaching.

Another finding in this study, social capital proved to have a positive effect on motivation for teacher candidates. Teacher candidates with strong social networks will be more motivated to engage in creative teaching behavior. This finding is relevant to previous studies that revealed that social capital is important in forming individual motivation [36; 37]. This means university student in teacher education programs must build social capital to increase their motivation to engage in creative teaching. The hope is that the high motivation obtained from the social network of teacher candidates can encourage student involvement in creative behavior during the teaching process at school.

Other investigation results show that social capital influences self-efficacy for teacher candidates. Of course, these findings make sense because the higher the strength of an individual's social network, the more likely they will be to encourage their sense of confidence to do creative teaching. Shi et al. stated that self-efficacy is formed through strengthening individual social networks [18]. Other studies that have helped corroborate these findings have also been conducted before [38; 39]. Individuals with more social capital can use relational resources to gain direct or alternative success experiences, and ultimately, social capital can increase teacher candidates' self-efficacy.

Social capital is not the only factor that plays an important role in creative teaching behavior; there are also personal factors, including motivation and self-efficacy. The linkage of social capital to motivation and self-efficacy is also needed to shape creative teaching behavior for teacher candidates. We found in this study that motivation and self-efficacy affect creative teaching behavior. Theoretically, individuals with high motivation tend to be highly committed to doing certain jobs [14; 16; 41]. That is, the motivation to engage in creative teaching will encourage the behavior of teacher candidates to carry out creative teaching in the classroom. This finding is also consistent with previous studies, which revealed that motivation and self-efficacy as personal dimensions predict creative behaviour [14; 18; 49]. Desire (motivation) and ability (self-efficacy) are two important factors that come from internal sources to influence the creative teaching behavior of teacher candidates. In Indonesia, teacher education programs for university students are carried out through teaching apprenticeships in schools for six months. This experience is very important to form social capital, motivation, and confidence regarding their creative teaching abilities, which will eventually be needed to teach realistically when they graduate.

This study proves that the creative teaching behavior of teacher candidates is solely influenced by social capital through the mediation role of motivation and self-efficacy. Teachers' perceptions and beliefs about their ability to teach for creativity influence the application

of creative teaching behavior¹⁶. This finding is consistent with previous studies, which show that self-efficacy mediates the relationship between social capital and creative teaching behaviour [18]. Innovation is a difficult goal that must be built on people's belief in their ability to solve problems in new ways. Teachers are more likely to adopt creative teaching behavior when they are confident in their creative teaching abilities, that is, when their creative teaching self-efficacy is high [49].

This study proves that social capital can influence the creative teaching behavior of teacher candidates through self-efficacy. Teacher candidates' creative teaching beliefs help drive the power of their social capital to influence teacher candidates' creative behavior. Previous studies have also confirmed that self-efficacy mediates the relationship between social capital and individual behaviour [50]. Theoretically, motivation is a reason or encouragement that causes individuals to carry out certain activities [16]. Consequently, highly motivated candidates will be more committed to creative teaching. This means that the motivation of teacher candidates plays a role in strengthening the influence of social capital on creative teaching behavior. Thus, high motivation and belief in teaching ability are proven to help strengthen the influence of social capital on creative teaching behavior for teacher candidates. Instilling motivation and self-efficacy needs to be carried out during the process of teacher education programs

for university students who are prepared to become teachers.

The results of this study provide important implications for lecturers to promote creative teaching behavior to students taking vocational teacher education programs. These students are candidates for vocational teachers who need to obtain social capital and strengthen motivation and self-efficacy to encourage the growth of creative teaching behavior. In addition, tertiary institutions must prepare educational programs for teacher candidates oriented toward developing creative teaching behavior through quality teaching programs. This quality teaching will be achieved if it gets positive resource support from universities.

The creative teaching behavior of teacher candidates is influenced by social capital, motivation, and self-efficacy. In addition, teacher candidates' strength of social capital also predicts motivation and beliefs related to their teaching abilities. This study also proves that social capital does not only have a direct influence on creative teaching behavior but also an indirect influence. In the context of this study, motivation and self-efficacy act as mediators that significantly mediate the effects of social capital on creative teaching behavior for teacher candidates. The results of this study provide important implications for university lecturers involved in teacher education programs to strengthen social capital, motivation, and self-efficacy for teacher candidates through the teaching process.

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