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The Impact of Mastery Goal Orientation in Moderating Creative Self-Efficacy on Feedback Received for Improving Innovative Work Behavior and Creative Performance in Indonesian Teachers.

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ABSTRACT (10 PT)

Imagination is an imperative characteristic that instructors must possess to fathom different issues within the world of education with the aim that learning can be achieved optimally. Apart from the inherent ability, imagination can also be influenced by several factors. External factors, specifically the role of feedback, and internal factors, specifically creative self-efficacy, creative work behavior, and leadership goal orientation. This study aims to identify the impact of creative self-efficacy, creative work behavior, and leadership goal orientation on imaginative performance, which is influenced by feedback for all instructors in Indonesia. This study was conducted using a purposive sampling method involving 265 instructors from Professional High Schools (SMK) in Indonesia, covering various subjects and having at least one semester of teaching experience. Data were analyzed using Structural Equation Modeling (SEM) with SmartPLS 3.2.9. Some of the findings in this study indicate that creative self-efficacy and creative work behavior have an influence on imaginative performance. Feedback also plays a moderating role in the relationship between creative self-efficacy and imaginative performance factors.

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1. INTRODUCTION

There is a great need for behavioral adjustments that can encourage creative thinking in responding to various challenges and problems in the world of education (Deng et al., 2020). This is because individuals currently tend to choose more effective steps with their creativity, such as implementing new ways of solving various problems at school (Ariyanti & Syah, 2022). Changes in conditions, the environment, and societal ways of thinking require individuals to adapt their task strategies and engage in learning new ways of working creatively in accordance with the current era (Solberg et al., 2022). Especially for teachers at the Vocational High School level who are dealing with the Industrial Revolution 4.0 era where educators' creativity is needed to apply technology in their teaching (Tanjung, 2019). Creative teaching is a process of building unique and meaningful knowledge that will be useful for future generations. However, this creative performance cannot just appear. Apart from the innate talent individuals possess, creative performance can also be influenced by several factors, including external factors, such as the role of feedback, and internal factors, such as creative self-efficacy, innovative work behavior, and mastery goal orientation (Wong et al., 2021).

Building creative self-efficacy is considered an important aspect of increasing creative performance because creative performance has a high impact when supported intrinsically (Niam & Syah, 2019), such as the interaction between self-efficacy and work goals. Through creative self-efficacy, individuals can effectively solve various problems adapted to current phenomena, such as the challenge of preparing students for the

workforce in the Industrial Revolution 4.0 era for Vocational High School teachers. Additionally, in building and maximizing the positive value of creative performance, innovative work behavior is also necessary.

Furthermore, mastery goal orientation is also believed to increase creative performance, as it is formed from an individual's ability to face various work challenges creatively (Stasielowicz, 2020). It also stems from the individual's ability to conceptualize personality dimensions that have a preference for creative work goal orientation. Individuals with a mastery goal orientation tend to make better progress when they receive positive feedback, as they continuously strive to improve their competencies. Positive feedback has a significant impact on individuals, increasing positive values in them (Wisniewski et al., 2020). This positive value influences their attitude toward work (Soelton et al., 2021), maximizing their performance in creatively addressing various work challenges. Therefore, feedback plays a positive role in enhancing creative performance with individual mastery goal orientation.

Accordingly, mastery goal orientation plays an important role in moderating this process. Wong et al. (2021) argue that individuals do not always need to receive positive feedback when building creative performance. With a high mastery goal orientation, negative feedback can serve as a reference for individuals to work harder and become more creatively oriented toward their work goals. Thus, teachers have a greater chance of achieving creative performance with the combined influence of both feedback and mastery goal orientation compared to teachers who are only influenced by one of these variables. To increase the likelihood of success in achieving creative performance for Vocational High School teachers in Indonesia, both of these moderation processes were implemented (Wong et al., 2021).

Previous studies have discussed several factors influencing creative performance, such as creative self-efficacy. It was found that there was an intervening variable between creative self-efficacy and creative performance, namely innovative work behavior. However, research linking creative self-efficacy, innovative work behavior, creative performance, mediated by feedback, and further mediated by mastery goal orientation is rare. Therefore, we are interested in researching this.

One key difference between this research and previous studies is that this research covers a broader domain with the inclusion of five hypotheses that need examination. Additionally, the subjects and objects studied are broader and different from those in previous studies. This research also introduces novelty by taking into account location and time differences, which are expected to yield more specific results. Recognizing that human thinking evolves with changing times and environments, this research addresses the multitude of factors present in the field of education and aims to determine the extent of their influence.

Furthermore, research on mastery goal orientation often uses students or company employees as subjects. Few researchers have made teachers or tutors the subjects of their research. As educators, we believe that mastery goal orientation significantly impacts creative performance for the advancement of education. Hence, we are interested in focusing on teachers as the subjects of this research. Based on these explanations, our goal is to demonstrate the connections among all the variables assumed to exist in the teaching profession in Indonesia.

2. METHOD

In this study, estimations related to the factors considered were obtained from previous studies. The variable of creative self-efficacy consists of estimations with 3 questions adapted from Tierney & Farmer. The variable of creative work behavior consists of estimations with 10 questions adapted from Jong & Hartog. The variable of creative performance consists of estimations from 13 questions adapted from Zhou & George. The feedback variable consists of estimations with 20 questions adapted from Linderbaum & Levy. Finally, the leadership goal orientation variable consists of estimations with 9 questions adapted by Vande Walle. A total of 55 questions were administered to respondents in Indonesia.

All responses were measured using a Likert scale with a range of 1 (strongly disagree) to 5 (strongly agree). Data for this study were collected through a survey method by distributing online surveys through software like Google Forms. The sample for this study was selected using a purposive sampling method from all private Professional High Schools in Indonesia. The criteria for respondents in this study were teachers from various subjects in private Professional High Schools in Indonesia with a minimum teaching experience of 1 semester or 6 months. The number of samples taken was 5-10 times the number of surveys. In this study, 55 surveys were used, resulting in a total of 275 (55x5) respondents. (Al-Omoush, 2021)

This quantitative study employs the Structural Equation Model (SEM) and was processed and analyzed using SPSS 25 for the pre-test and smartPLS 3.2.9 for the post-test. The validity of the research was assessed using the Kaiser-Meyer-Olkin (KMO) and Measures of Sampling Adequacy (MSA) sampling sizes as indicators of test validity. The data were deemed valid and adequate if the KMO and MSA values exceeded 0.5 with a one-factor structure. Subsequently, the reliability test used Cronbach's Alpha measurement, where values exceeding 0.7 were considered reliable and acceptable.

The results of the confirmatory factor analysis validity test indicate that all statements related to creative self-efficacy (CSE) and creative performance (CP) variables have been deemed valid with KMO, MSA, and communalities values > 0.5 with a one-factor structure. However, within the creative work behavior (IWB), feedback (FB), and leadership goal orientation (MGO) factors, not all communalities values exceeded 0.5, specifically in statements IWB1 (0.303), FB7 (0.357), and MGO2 (0.455). Furthermore, the results of the reliability test for all valid variable statements were deemed reliable with Cronbach's Alpha > 0.7. Therefore, after examining the results of the pretest on 30 respondents, all statements that were deemed valid and reliable were used as survey items in this study, totaling 52 statements.

This study utilizes SEM, requiring a minimum of 260 respondents to obtain valid and accurate research results since the number of respondents should be at least five times the number of questions in the study. The hypotheses in this study can be summarized as follows:

H1: Creative self-efficacy has a positive impact on creative work behavior.
H2: Creative work behavior has a positive impact on creative performance.
H3: Creative self-efficacy has a positive impact on creative performance.
H4: Creative self-efficacy and feedback are connected in influencing creative performance in teachers. Teachers with lower levels of creative self-efficacy will show higher levels of creative performance when given positive feedback compared to negative feedback.
H5: Leadership goal orientation will moderate the joint effect of creative self-efficacy and feedback on creative performance.

Feedback (either positive or negative) will have a negative impact on creative performance for teachers who exhibit high levels of creative self-efficacy and low levels of leadership goal orientation. However, negative feedback will have a positive impact on creative performance for teachers who demonstrate high creative self-efficacy and high levels of leadership goal orientation. Through these five hypotheses, the research findings can be summarized as follows:

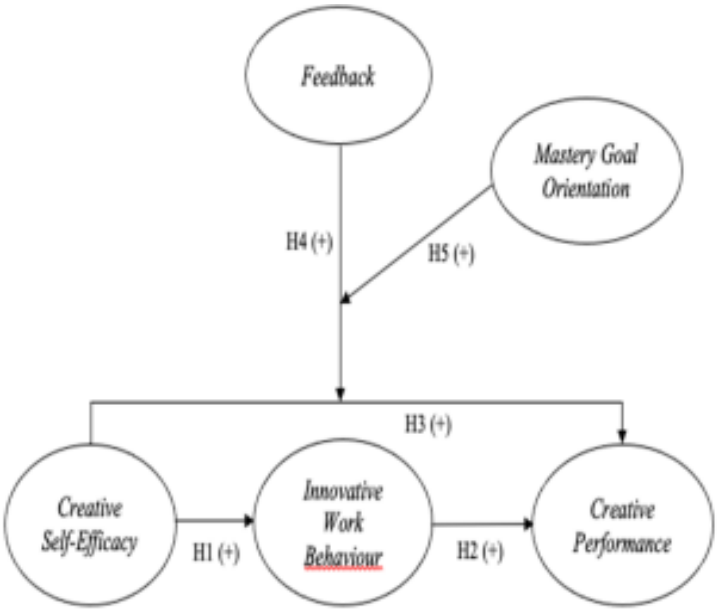

Figure 1. Research Model

3. RESULTS AND DISCUSSION

This study obtained a total of 265 respondents who were private vocational school teachers throughout Indonesia. Of the total respondents, 53.4% were boys, and 46.6% were girls, with the largest number of teaching placements in West Java (55.6%). The majority of respondents were aged between 25-40 years

(42.5%), with the majority having a Bachelor's Degree (87.2%). Most of the respondents have teaching experience of 1-5 years (45.5%).

In this study, construct validity and reliability tests were conducted using SmartPLS, with a requirement of ≥ 0.70 for the loading factor value. The measurement of construct validity for all indicators in this study is acceptable and considered valid because they have loading factor values above 0.70. The calculations for Composite Reliability (CR) and Average Variance Extracted (AVE) in this study are deemed eligible because the CR value is above 0.70, and the AVE value is above 0.50. The calculation results for the variables Creative Self-Efficacy (CR=0.938; AVE=0.834), Innovative Work Behavior (CR=0.972; AVE=0.792), Creative Performance (CR=0.967; AVE=0.695), Feedback (CR=0.970; AVE=0.629), as well as the last latent variable, namely Mastery Goal Orientation (CR=0.951; AVE=0.709).

The Discriminant Validity test is considered valid because the AVE root in each latent variable is higher than the correlation with other variables (Fornell-Larcker Criterion). Additionally, each indicator has a higher correlation with its respective latent variable compared to other latent variables (Cross Loading). The HTMT value for each correlation between variables is less than 0.9 (Heterotrait-Monotrait Ratio), demonstrating that the discriminant test for all variables or the correlation between variables in this study is considered valid.

This study conducted a structural test to determine the R2 value in each equation. Based on the results obtained in the SEM analysis, the analysis reveals that the Creative Performance (CP) variable is jointly influenced by Creative Self-Efficacy (CSE), Innovative Work Behavior (IWB), and the moderating role of Feedback (FBCSE) and Mastery Goal Orientation (MGOFB), with an R2 value of 0.722. Therefore, it can be interpreted that 72.2% of the variance in Creative Performance (CP) can be explained by Creative Self-Efficacy (CSE), Innovative Work Behavior (IWB), and the moderating roles of Feedback (FBCSE) and Mastery Goal Orientation (MGOFB), while the remaining 27.8% can be explained by other variables. Furthermore, the analysis indicates that the Innovative Work Behavior (IWB) variable is influenced by the Creative Self-Efficacy (CSE) variable, with an R2 value of 0.288. This suggests that 28.8% of the variance in Innovative Work Behavior (IWB) can be explained by Creative Self-Efficacy (CSE) variables, while the remaining 71.2% is explained by other variables not considered in this study.

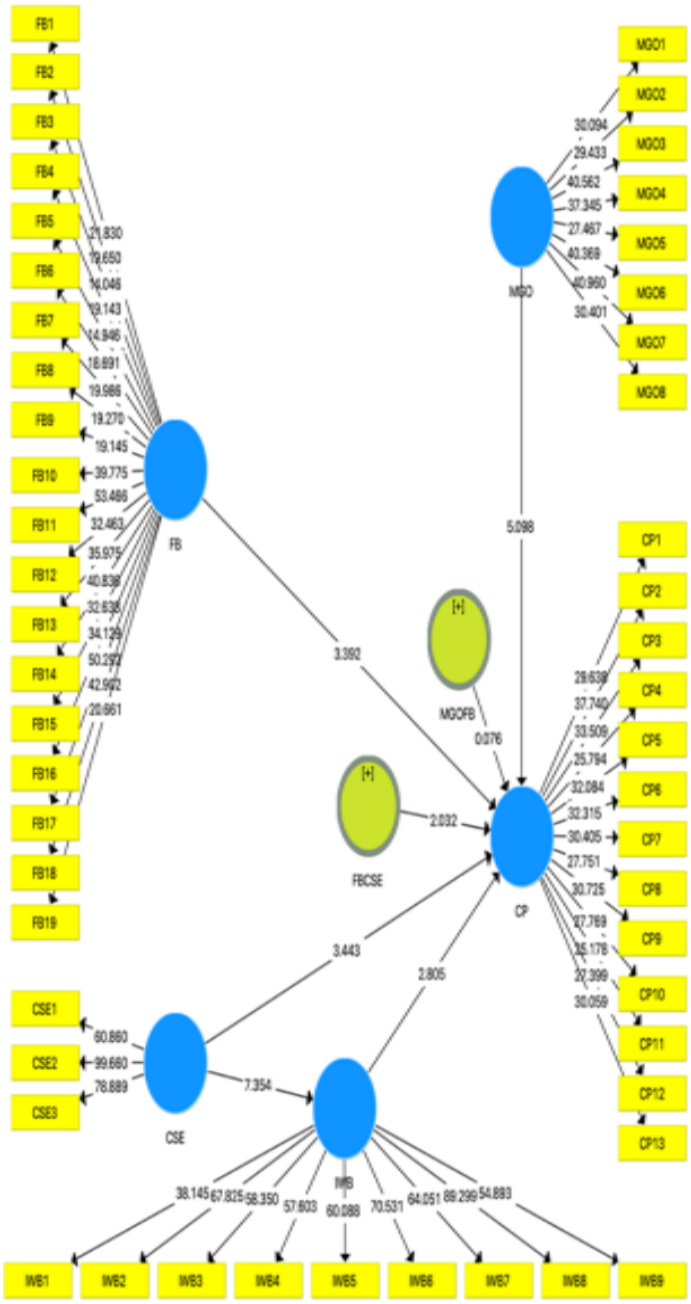

Figure 2. Path T-Value Diagram

The results of the Quality Model test show a good fit. This can be seen from the value of R Square, Q Square Redundancy, and SRMR. Based on the Path Diagram T-Value in Figure 2 above, the research model hypothesis testing can be presented as follows:

Table 1. Hypothesis Test Results

Hypothesis	Hypothesis Statement	Mark T-Value	Information
H1	*Creative self-efficacy* positive effect on innovative work behavior.	7,354	The data support the hypothesis
H2	*Innovative work behavior* positive effect on creative performance.	2,805	The data support the hypothesis
H3	*Creative self-efficacy* positive effect on creative performance.	3,443	The data support the hypothesis

H4	*Creative self-efficacy* and feedback interact in influencing creative performance.	2,032	The data support the hypothesis
H5	*Mastery goal orientation* will moderate the combined condition of creative self-efficacy and feedback in influencing creative performance.	0.076	The data do not support the hypothesis

Based on the hypothesis test table above, it can be concluded that four out of the five hypotheses are supported because they have T-Values above 1.96. Only hypothesis 5 shows a value below 1.96, so the hypothesis is rejected.

This research explores and empirically tests the influence of creative self-efficacy, creative performance, and innovative work behavior, which are moderated by feedback and mastery goal orientation. This research demonstrates that a person's creative self-efficacy can lead to innovative work behavior. Innovative work behavior in a teacher can instill confidence in becoming creative actors, ultimately positively impacting the development of learning, leading to students excelling in the learning process. When teachers possess creative self-efficacy and exhibit innovative work behavior, they are inclined to create a new atmosphere in their teaching methods and readily embrace innovation in their approach. Consequently, a positive relationship is established between creative self-efficacy variables and innovative work behavior, as confirmed in previous studies.

This study also reveals that innovative work behavior positively influences creative performance. Teachers with innovative work behavior excel in idea exploration, idea generation, idea championing, and idea implementation, which enhance their creative performance. This benefits the organization, both financially, generating profits, and non-materially, enhancing creative performance that generates new ideas for organizational progress. Teachers with innovative work behavior generate creative teaching methods, techniques, and strategies to achieve learning objectives. The positive influence of innovative work behavior on creative performance is supported by various previous empirical studies (Santoso et al., 2019).

Creative self-efficacy also positively impacts creative performance, as creative performance fundamentally arises from creative thinking and one's creative self. When a teacher successfully achieves learning targets or goals through innovative approaches, they experience a sense of pride and satisfaction derived from their creative self-efficacy. This satisfaction motivates the teacher to continue seeking creative approaches in their work. Given that students highly value creative teaching, teachers must prioritize creative performance. Many company leaders seek employees with creative performance, which is only attainable with creative self-efficacy. These findings are further corroborated by numerous empirical studies, with multiple researchers affirming a positive relationship between creative self-efficacy and creative performance (Asada et al., 2021).

Another discovery in this study is the moderating role of feedback, which strengthens the relationship between creative self-efficacy and creative performance. Providing feedback in any form boosts an individual's self-confidence, fostering creative performance. In this study's assessment instrument, 95% of respondents strongly agreed with the statement, "Feedback given can improve my work performance." Irrespective of whether creative self-efficacy is high or low, feedback remains influential in enhancing creative performance. Effective communication, such as feedback, is essential in a work environment, as it facilitates smooth operations. This research further establishes that school principals' provision of feedback contributes to teachers' success. Wisniewski et al. (2020) expounded in their analysis that creative performance thrives when there is leadership support in the form of direct feedback. This underscores the profound impact of feedback in moderating intrinsic factors such as creative self-efficacy and creative performance, as substantiated by several prior studies.

Another result of this study shows that the moderating role of mastery goal orientation cannot strengthen the relationship of moderating feedback on creative self-efficacy and creative performance. This is different from the research by Wong et al. (2021), which shows that mastery goal orientation has a moderating effect on feedback regarding creative self-efficacy and creative performance. In this study, mastery goal orientation cannot influence creative self-efficacy based on the feedback received to achieve their creative performance. It is proven that teachers with an interest in learning difficult and challenging assignments/job desks cannot influence their creative performance. So, recognition from co-workers of the greatness of their performance also cannot affect the effect of the feedback they receive in increasing their creative self-efficacy and creative performance. Likewise, feedback that they consider important in contributing to their success, which will improve their creative way of thinking, is also not affected by the level of difficulty of the task they choose. Teachers who choose difficult tasks to prove themselves superior to their colleagues do not have a significant

impact on the way they behave on the feedback they receive, so that creative self-efficacy and creative performance also do not have a significant impact (Wong et al., 2021).

Self-efficacy is a person's confidence in completing a task assigned to them. So, creative self-efficacy is self-confidence in self-creativity in completing a task, so that if the individual feels creative, then the things they will do will be completed in a creative way. According to Gielnik et al. (2020), variability in self-efficacy will energize individual actions because it involves self-confidence, self-motivation, and perception of differences as competing motivational processes. It should be noted that as a teacher, it is necessary to have confidence in the ability to think creatively to deal with all problems. Because the level of self-confidence will have an impact on mental health, physical health, work performance, and turnover (Nugrahati et al., 2019). Thus, creative self-efficacy is considered as an important indicator that must be possessed by teachers to achieve work goals and learning objectives.

Attention to the concept of self-efficacy refers to one's belief in one's abilities with an emphasis on motivation and cognitive resources for the successful implementation of tasks. Research self-efficacy is related to researchers' beliefs in conducting research and individual judgments about their ability to organize and carry out research activities. In other words, self-efficacy research demonstrates the adaptation of the social-cognitive self-efficacy concept to academic research. This adaptation is one of the best predictors of successful research activities. In this regard, research self-efficacy is influenced by various factors including academic stress. While necessary to some extent, stress becomes a problem if people cannot predict their future or their behavior, see themselves involved in futile endeavors, or believe they have no control over events. In the long term, stress causes tension, anxiety, and bad moods in humans. Thus, failure to address or overcome a problem creates stress and makes efforts inflexible, so that other solutions to the problem are neglected. Students face academic stress in educational and academic settings due to an overflow of information that fills their minds and prevents them from processing and assimilating new information. Various studies have confirmed the relationship between academic stress and research self-efficacy (Haryudo et al., 2023).

One important aspect of mental health in students is attention to academic stress. Stress is an integral part of life, and depending on the level of psychological stress and the quality of a person's adaptation to it, it can cause illness. Prolonged and continuous stress in the study and work environment can lead to depression and cause problems such as frequent absences and reduced academic and work performance. Considering that the health service environment that is related to human life is known as a stressful environment and its employees are prone to experiencing severe stress, the stress caused by this type of work can affect student academic achievement. However, now this hypothesis has been proven that stress is one of the factors that interfere with academic achievement; It is considered among the students' academic success and progress; Therefore, stress can have a negative impact and interfere with the achievement of educational goals. The results of this study and the results of previous studies indicate that stress is a variable that affects the level of self-efficacy beliefs of students, and the perception of high levels of stress causes a decrease in self-efficacy beliefs. on students. In explaining the results, it can be said that stress and physiological arousal are effective factors in reducing self-efficacy. Students with high stress rate their learning and learning skills lower than their abilities and knowledge during their studies. Having skills that help one reduce the stress of achieving success, in addition to improving mental health, causes one to become more efficient; Also, stress management skills can be effective on a person's mood in an educational setting.

Since postgraduate students play an important role in improving the educational process and developing scientific services in society, acquiring research skills is essential. People with high self-esteem have greater self-efficacy and performance, while people with low self-esteem accept defeat, causing a decrease in self-efficacy. In this regard, lecturer behavior and support have a significant effect on students' intellectual development. The results also show that academic stress has a significant correlation with research self-efficacy when mediated by research enthusiasm. Researchers did not find similar studies related to this finding. The first hypothesis shows that academic stress does not have a significant correlation with research self-efficacy, while the indirect hypothesis reveals that academic stress can reduce research self-efficacy by weakening students' research enthusiasm. Because medical students complete clinical courses concurrently with their other studies, they may not have the time and motivation to conduct research, which undermines their research enthusiasm and hence research self-efficacy. Therefore, research enthusiasm acts as a good mediating variable in the relationship between academic stress and research self-efficacy (Syah et al., 2021).

It should be noted that creativity is a distinctive characteristic that must be possessed in the development of innovative behavior. Therefore, innovative work behavior is also defined as work behavior that refers to the creative ability to generate ideas from new perspectives that can be transformed into innovations (Santoso et al., 2019). To form innovative work behavior, one needs the ability to think creatively and the confidence to produce something innovative. The implementation of innovative work behavior includes the initiation and implementation of ideas, which are then translated into 10 items in 4 dimensions: idea exploration, idea generation, idea championing, and idea implementation.

Creative performance is work performance that refers to individual creativity, which involves risk-taking, adopting new ways of thinking, doing something new, and initiating change (Goh et al., 2020). Cai et al.'s study (2020) noted that workers with problem-solving skills have inherent creative performance. This was also confirmed in Tønnessen et al.'s research (2021), which revealed that creative performance can manifest when individuals have the desire to solve problems in their current situation (Tønnessen et al., 2021). Based on this, creative performance is an interaction between talent, process, and the environment, where an individual can produce a new product or a new solution to a problem.

In creative performance, two types of predictions may occur: individual factors (collaborative problem-solving) and contextual factors (organizational support for problem-solving). Therefore, a teacher with creative performance can individually or contextually provide an innovative curriculum and teaching strategies that suit student needs, knowledge characteristics, and teaching situations to achieve learning goals (Liu et al., 2022). Through the use of creative performance skills, a teacher can develop their existing skills and knowledge. In the process of creative thinking, teachers work together to learn, share, and analyze pedagogy and lesson content, as well as improve practices that occur in class (González & Deal, 2019). There are 13 items used to measure the creative performance variables, reflecting various individual recognitions of their ability to create or develop new ideas.

Feedback is information provided by someone regarding aspects of one's performance or recognition. Feedback can be given in various forms, including praise, punishment, rewards, and corrective feedback. All have different effects on individuals, but corrective feedback has been shown to be effective in enhancing the learning of new skills and tasks. In feedback, there is an intervention theory that argues that the task learning process can be activated by the motivation given (Wong et al., 2021). Thus, providing feedback can motivate workers to overcome individual differences and turn them into competitive advantages to support the completion of work challenges. Therefore, giving feedback can serve as motivation for workers, even if it's just saying "good job!" but emphasizing words or corrective actions to help individuals improve their work performance.

Feedback provides individuals with the opportunity to evaluate their performance and compare it to standards of excellence. Effective feedback highlights strengths and areas for improvement by providing descriptive information that links the cognitive processes and strategies underlying task assessment. Giving feedback can be influenced by an individual's own efforts or efforts to change the environment. There are 20 items in measuring the feedback variable, comprising 4 dimensions: utility, accountability, social awareness, and feedback self-efficacy, with each dimension consisting of 5 items (Slamet, 2020).

Mastery Goal Orientation is an orientation toward work goals that individuals have in order to develop competencies and achieve their desired goals. It involves a focus on learning, such as mastering tasks according to existing standards or exceeding them, developing new skills, tackling challenging tasks, and gaining recognition or insights from work challenges. In the face of work challenges, the ability to adapt to changing times and find learning strategies is one of the main tasks of a teacher, making mastery goal orientation a motivational orientation to enhance one's self-abilities.

It should be noted that individuals with a mastery goal orientation are more likely to seek and engage in existing opportunities rather than focusing solely on demonstrating competence. They see these opportunities as chances for learning and self-development and tend to embrace challenging assignments while welcoming constructive feedback. A recent meta-analysis has suggested the positive influence that mastery goal orientation has on the work environment (Nurjannah et al., 2023), such as more effective problem-solving and adaptive work performance. Mastery goal orientation is estimated using three dimensions: learning, proving, and avoiding, with a total of 9 items used to operationalize performance factors that focus on attention by demonstrating one's abilities to others.

Innovative work behavior is a positive behavior that can be properly applied if the person has the internal strength to face challenges and failures. This internal strength can take the form of creative self-efficacy, which is the belief in one's ability to exhibit innovative behavior. Thus, individuals with high creative self-efficacy can easily find the motivation, knowledge, and actions necessary to exhibit innovative work behavior.

The concept of development has been a subject of contemplation among researchers for several decades. Different studies focus on different aspects of creative activity. For instance, political science examines the dissemination of policy innovations, management studies organizational development, economics investigates research and development, and organizational psychology examines individual-level creativity and innovation (Sari & Indrawati, 2023).

Although studies of innovation have occurred at the individual, group, organizational, industry, and national levels, studies of innovation across these levels are rare. At the national level, innovation is linked to macro indicators such as the effects of efficient and impartial bureaucracy and national culture. Organizational-level studies have connected innovation to indicators such as organizational size, industry competition, and

environmental uncertainty, as well as outcomes such as organizational performance in both the private and public sectors.

Once every three decades, public administration scholars have drawn attention to the dramatic shift away from traditional bureaucratic structures toward more networked forms of public administration. This research is organized under terms such as "networked public administration," "collaborative public administration," and, more broadly, "collaborative governance." Although this line of research has examined various forms of interorganizational and intergovernmental arrangements, and their associated performance, little is known about how public administrators respond to pressures for greater networking and collaboration.

Drawing from the literature on public administration networks, innovative work behaviors (IWBs), and the job demands-resources model, we hypothesize that interactions with external partners will drive greater IWBs, as reported by public administrators. Job demands can lead individuals to a state of heightened arousal, where they are compelled to manage and develop new patterns of active learning, thereby leading to innovation. Focusing on the public administration field, we argue that the Australian government's efforts to expand external networking and collaboration among public administrators represent unique job demands that will facilitate higher levels of individual creative effort.

However, not all pressures are equal, and evidence suggests that when individuals are initially confronted with increased job demands, they may experience greater interpersonal conflict and reduced effectiveness. We argue that as the level of interaction increases, public administrators can become more efficient at channeling various sources of information and knowledge to enhance their performance and outcomes. Thus, we hypothesize that the relationship between engagement with external and internal partners and IWB will exhibit an inverted U shape, such that too little or too much interaction will be negatively related to IWB.

Our representative sample from the Australian Public Service provides some evidence for our hypothesis. Specifically, we found that networking with government and non-government actors had independent positive associations with reported IWBs. However, when considered together, only networking with non-government partners showed a positive relationship with IWB. This is likely because non-government partners can engage in different forms of information sharing and interaction, thus increasing learning and innovation. In contrast, intergovernmental networks may not always provide the same level and quality of learning (Warwick et al., 2020).

While we find that networks are generally positively associated with larger IWBs, we find no conclusive evidence of a curvilinear relationship between the number of network partners and IWBs. However, when the curvature parameters are introduced, the independent association between networking with external partners and IWBs is greater. These two findings suggest that increased network density is indeed associated with higher rates of IWB. Overall, we find limited evidence for a curvilinear relationship between networks and IWB. However, our approach is limited by our reliance on the number of network partners as a proxy for network intensity as job demands. This may obscure important individual-level differences in administrative capacity to manage networks and organizational-level differences in how strategically network behavior is to the organization's mission. Given these limitations, we encourage future research to explore this relationship using different research designs and in different settings (Rafique et al., 2022).

At the individual level (the core of this research), research has examined dispositional characteristics such as personal differences, cognition, and task presentation, as well as situational factors like job complexity and independence. Within the context of this research, Innovative Work Behavior (IWB) has been defined as "the presentation or application of novel ideas, products, processes, and methods by employees in their work roles, work units, or organizations." Experimenting with new ideas, discovering better ways to perform tasks, and idea generation and implementation are crucial aspects of IWB. Therefore, IWB differs from creativity in that the latter does not encompass the application and implementation of ideas. Research indicates that the more employees engage in or exhibit creative behavior (Sonnentag et al., 2022).

This study makes a significant contribution to comparative and global public administration studies in general and innovation studies in particular. Since not all countries are equal, public administration scholars encourage studies that examine contextual factors, especially comparative studies. In the field of innovation research, scholars urge the exploration of areas beyond the United States, describing this as "the parochialism of American public administration," and encourage researchers to "engage more broadly with other regions and areas by working across borders to develop and enhance our theory and experience." An example of this can be seen in research comparing public administration and performance in US and Danish schools, where the authors find that innovation and change in education are highly promoted in the former despite being effective, while in the latter, cooperation is seen as yielding more positive results. Therefore, administrative systems shape how individuals engage in IWB and are crucial for understanding variations across countries. Thus, Australia provides a non-US comparison (Breaugh et al., 2023).

Creative performance is a challenging aspect to cultivate, so innovative work behavior is necessary. However, in practice, employee behavior can either encourage or hinder employees from taking risks to generate new and useful ideas for their creative performance in the company. It should be noted that innovation in business typically results from creative ideas that still need to be developed for implementation within the organization to achieve the desired outcomes. Therefore, innovative work behavior positively contributes to enhancing creative performance within an organization. This statement is also supported by other studies (Mutonyi et al., 2020).

Creativity has played a central role throughout history. Progress and innovation are driven by our ability to modify existing patterns and create new things. Given the importance of creative thinking, creativity is becoming an increasingly popular research topic examined by various disciplines with different perspectives and methods. The emergence of new measurement techniques has bolstered creativity research from diverse viewpoints. For instance, creativity has been studied in cognitive science, in pedagogy and education, and more recently in neuroscience. With a variety of neuroimaging approaches and methods, neuroscientific studies have identified a link between brain activity and fundamental creative thinking. For example, brain-creativity relationships have been examined in response to different forms of thinking.

The electroencephalographic data obtained indicated that the participants' valence levels were significantly higher during spontaneous design and free improvisational tasks compared to baseline levels. Furthermore, the valence level was significantly higher during the free improvisation task than during the design spontaneity task. No significant difference was found between the valence level during the musical exercise and the baseline conditions. These results should be interpreted as a relative decrease in alpha activity in the left frontal lobe during the improvisational process, which could be interpreted as an improvement in mood or a reduction in negative mood. This suggests that musical improvisation has a "feel good" effect, and the more creative the improvisational process, the stronger this effect.

No significant differences in arousal were found between the standard, rhythmic exercises, design spontaneity, and free improvisation conditions. This result should be interpreted as a lack of significant change in alpha activity in the frontal lobe during the improvised process compared to baseline activity. This may be consistent with a lack of consensus regarding increased frontal alpha strength during creative tasks. Therefore, educators can provide opportunities for creative performance for students, not limiting them to academics, but also allowing students who interact with non-academics, such as music, to create positive outcomes for students in achieving mastery goals in their education.

Creativity neuroscience research using Electroencephalography (EEG) techniques has observed changes in alpha bands compared to a control task when participants take a creative thinking test that assesses the ability to generate multiple solutions to open-ended problems. However, there is no consensus among researchers regarding the direction of change. Some researchers have reported increases in frontal alpha in synchronization with divergent thinking, as well as increases in alpha power in frontal regions. However, the work of other researchers has not been able to replicate these results and has reported a decrease in frontal alpha, no significant increase in alpha power, or instead an increase in theta, delta, and beta powers but not alpha power.

Music is one of the most highly creative domains of human activity, providing an interesting challenge for studying creativity. Early studies of musical creativity included EEG studies involving seven composers and PET imaging studies using singers. With regard to EEG analysis, fine-grain source localization focused solely on coherence, considering coherence and control. Regarding the types of participants, some studies considered both musicians and non-musicians, while others compared professional and amateur musicians or music students, addressing professional composers and student or professional free-form rap artists. Others compared professional pianists with varying degrees of classical training vs. jazz or musicians with more creative flexibility vs. rigid methodologies. Methodologies also varied, using surveys to collect data, employing mental composition tasks, while others utilized improvisational forms. While compositional tasks involve only mental composition (i.e., no motor performance), improvisational tasks also involve motor performance (Primett et al., 2022).

There is a wide field of research exploring how playing and listening to music can improve individual health and well-being. The unique characteristics of musical improvisation may have distinct health and well-being effects compared to other musical activities. As a therapeutic intervention, musical improvisation has been used to enhance various conditions, including mental health conditions, and to reduce stress and anxiety. The results presented in this study support and provide a foundation for the applied use of musical improvisation in this therapeutic context. Furthermore, even though musical improvisation in therapeutic interventions serves a different purpose than improvisation in other settings, the method can be seen as quite similar, indicating that musical improvisation may offer inherent benefits to the health and well-being of broader populations outside of therapeutic settings. The results presented in this study can be interpreted in this direction and can open up a wider range of musical improvisational practices in educational and other settings. Musical improvisation and its associated emotional effects can be used as a tool to enhance the motivation of

music students, which may lead to lower dropout rates. Creative self-efficacy provides confidence to individuals to work creatively. This demonstrates the link between creative self-efficacy and creative performance. Creative performance is a function of individual attributes. Creative self-efficacy is a function of personal attributes that awaken individual personality, ability, and motivation to be creative. Creative performance feels significantly stronger for those with creative self-efficacy. This statement is also supported by other studies (He et al., 2020).

Feedback is oriented towards processes that will bring about behavioral changes to improve work performance. Feedback is considered a significant part of individuals in building their performance both internally and externally. When seeking feedback, individuals may be disturbed by their internal state because they may hear things they shouldn't. This can have an impact on their creative work performance. Feedback lends credibility to the subject under discussion, and this is inversely proportional to those who do not receive feedback. Thus, there is a strong relationship between feedback, creative self-efficacy, and creative performance, as previously studied (Wong et al., 2021).

Two common hypothetical approaches have focused on the overall improvement of motivational factors during adolescence. According to this, changes in motivation can occur as a result of cognitive development and relevant changes that occur during the school years. Both approaches can also be linked to a more specific definition of student achievement goal-oriented development. The first perspective suggests that students experience significant changes in their beliefs about their abilities during adolescence, resulting from cognitive development. The perception of this ability is closely related to the adoption of achievement goals. Individuals who have incremental beliefs about abilities or who believe that abilities are malleable are more likely to adopt a mastery approach, while those who hold entity beliefs about ability tend to adopt a performance approach. Since younger students tend to believe more in the malleability of their abilities, they are more often oriented toward mastery approaches. As entity beliefs increase during mid-to-late adolescence, along with changes in judgments that are more similar to peers, growth in performance orientation is also expected. Since its inception, achievement goal theory has incorporated the idea that students' motives for achievement can be influenced not only by their dispositional tendencies but also by their school, peers, and social setting (Beltrán-Morillas et al., 2023).

Students rarely exhibit only one type of motivation in the classroom and are seldom isolated from their learning environment and peers. In this article, we aim to improve research and practice by identifying common developmental patterns of achievement goal orientation that influence student learning in junior high school, identifying contextual influences and individual differences, and defining how student orientation patterns are academically adaptable. This study is one of the first to extend the person-oriented approach to achievement goal orientation research by expanding the focus to include classroom and peer contexts when examining the developmental patterns of goal-oriented students. This is particularly relevant in the context examined, as most students remained in the same grade in grades 7–9, emphasizing the importance of peer influence over teacher influence, and differences between classes appeared to lead to collective achievement and motivational effects, especially toward the end of Finnish comprehensive school.

From its inception, achievement goal theory has incorporated the idea that students' motives for achievement can be influenced not only by their personal characteristics but also by their school, peers, and social setting. Thus, achievement goals research can provide tools for examining and answering questions about educational disparities and implications for policy and practice. One notable advancement compared to previous person-oriented studies of student achievement goal orientation is that we address the context of educational realities in our research, allowing us to capture the role of class composition in the development of student goal orientation patterns. Findings of classrooms with distinctly different achievement orientation profiles, which in turn appear to drive different patterns of change in individual orientation, raise questions about how class composition affects individual student motivation and school engagement. It should be noted that the class profiles identified in this study do not necessarily reflect teacher influence, as Finnish high school students are taught by subject teachers who teach mostly parallel classes while student composition remains largely the same. Therefore, even if Finnish comprehensive schools do not provide open tracking or streaming, the results seem to reflect the presence of semi-hidden streaming, which is not only evident in the reported differences in learning outcomes between classes but may also explain the findings.

Goal orientation is a belief system based on subsequent learning and performance, as well as the ability and effort of the individual themselves. Mastery goal orientation refers to individuals' cognitive perceptions that focus on developing competencies and skills when responding to creative performance achievement situations (Wong et al., 2021). Individuals with a mastery goal orientation tend to commit themselves to performance behaviors that can enhance their skills. In the process of developing self-skills, the presence of feedback provides individuals with inner confidence to work creatively and encourages the presence of mastery goal orientation within them. Therefore, there is a strong relationship between mastery goal orientation, feedback, creative self-efficacy, and creative performance, as previously explored.

4. CONCLUSION

The majority of the hypotheses in this study were successfully executed, where creative self-efficacy and innovative work behavior have an impact on creative performance, which is moderated by feedback. Meanwhile, mastery goal orientation does not exert a moderating effect on feedback moderation of creative self-efficacy and creative performance. Our study underscores the pivotal role of creative self-efficacy and innovative work behavior in shaping a teacher's creative performance. Feedback from principals has a crucial impact on enhancing creative self-efficacy, ultimately leading to improved creative performance. Furthermore, if teachers receive feedback from the principal, whether in the form of a reward, recognition, appreciation, or just words of motivation, it will enhance their creative self-efficacy, leading to high creative performance. However, this research demonstrates that a teacher's mastery goal orientation will not influence the feedback they receive in terms of increasing creative self-efficacy and creative performance. Teachers will engage in creative work based on the feedback they receive, regardless of their mastery goal orientation.

These research outcomes hold significance not only for the Indonesian education system but also for educational contexts worldwide. The role of creative self-efficacy, innovative work behavior, and feedback in enhancing teacher performance is a universal concern. Creative self-efficacy and innovative work behavior manifest through the development of new ideas and more creative problem-solving in the classroom. These creative efforts can yield profound creative insights, attainable through participation in exercises, training, seminars, reading books, or exploring other learning creativity-related media. Additionally, teachers' creative performance can be bolstered by feedback provided by the principal. As many teachers gauge the success of their work based on the feedback they receive, school principals must consistently allocate time to offer feedback to teachers, whether in the form of rewards, recognition, appreciation, or simple words of motivation. Future research may delve into additional moderators that influence the relationship between feedback, creative self-efficacy, and creative performance. Longitudinal studies could also provide insights into the sustained impact of these factors on teacher performance over time.

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