

Effect of Growth Mindset on Work Motivation: A Pre-Post Control Group Exploration

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Work motivation plays a crucial role in influencing employee performance, productivity, and psychological well-being in dynamic work environments. However, many workers experience motivational decline due to various internal and external pressures. This study aims to examine the effectiveness of a growth mindset intervention in increasing work motivation among workers in Samarinda, Indonesia. Employing a quasi-experimental design with pre-test and post-test dependent samples and an untreated control group, the study involved 28 participants divided into experimental and control groups. The intervention consisted of growth mindset training focusing on conceptual understanding, strategy implementation, and flexible thinking in response to workplace challenges. Results indicated significant changes in the motivation levels of workers who received the intervention, compared to those who did not. These findings confirm the positive effect of cultivating a growth mindset on work motivation. This study offers empirical support for using mindset-based interventions in organizational development. The implication highlights that fostering a growth mindset can be a strategic psychological approach to enhance employee motivation, improving performance, resilience, and engagement in the workplace.

Keywords. Mental physiology, growth mindset, work motivation

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Human resources involve a combination of mental and physical capacities each individual possesses. A person's characteristics can be influenced by various factors, such as the scope of education and work (Noll et al., 2020). Initially, the term human resources was taken from the translation of human resources, but some experts also associate it with manpower or labor. In fact, some people equate the phrase human resources with the term personal or personnel, staffing, and the like (Sulthon & Sovitriana, 2023). Human resources are said to be the only resources that have intellectuality, feelings, and desires that affect the efforts of organizations or agencies in achieving goals (Satria & Kuswara, 2013). This shows that humans as human resources act as the company's main asset, and assets that are very valuable or valuable can be developed (Ahmed et al., 2025). Human resources can be said to have a vital role or include crucial aspects in a company or organization to improve operational effectiveness and efficiency (Putri et al., 2024).

Organizations or companies need Ernawati et al. (2025) to state that qualified employees or workers can achieve the goals set, so many companies have implemented job training programs to develop workforce skills for optimal and quality performance. This is done to obtain quality human resources and to carry out their work properly and effectively to achieve the desired goals (Mohamed et al., 2025). According to Wiyono et al. (2024), work motivation is crucial in determining how well an individual or organization performs. A person's performance in doing work is influenced by several factors, including work motivation (Marques, 2023). Someone with high work motivation will also optimize the work results following established work standards (Gill, 2022).

Work motivation is said to be a drive that can move someone to do work in various ways to work effectively to achieve goals (Lijster et al., 2022). According to Mammarella et al. (2021) work motivation is influenced by two factors, namely internal factors that are considered as workability in a person, a person's enthusiasm or enthusiasm in completing work, responsibility or awareness in performing obligations, work productivity, and a sense of togetherness or bond that arises when they want to realize common interests. Meanwhile, external factors that can affect work motivation are the application of leadership style, work environment, self-competence, and career coaching (Bakari & Tiba, 2019). The opinion of Unni and Thomas (2020) added that one of the factors that can affect internal motivation is a growth mindset. A growth mindset can make a worker more active in developing a positive attitude, hard work, and motivation to face various challenges at work (Apriliani et al., 2022). This is supported by Sulthon and Sovitriana (2023) which states that an optimistic mindset

increases confidence in facing various processes, which can affect individual motivation. Someone with a growth mindset believes his abilities can be improved through better efforts or efforts (Klasen, 2002). By adhering to a growth mindset, individuals can continue to learn and work because they feel confident that their efforts can improve their abilities (Adpebi J., 2024). Individuals with a growth mindset tend to see challenges as opportunities to learn and grow, even in the face of failure to push themselves to improve their skills.

In the context of work, individuals with a growth mindset will be more motivated to achieve goals, seek knowledge updates, and strive to overcome obstacles that arise. However, some individuals have not applied a growth mindset in solving problems or working processes because they still have a fixed mindset. Individuals with a fixed mindset believe that their abilities are predetermined and cannot change, tend to have lower motivation at work, and are more prone to feelings of hopelessness when facing difficulties. According to Athletics and Sports (2025) workers can become workers according to the human resources needed, if an organization or agency provides training to increase employee motivation because motivation can make a worker work better. Training is a way to teach employees how to work according to applicable standards Marsandya (2024). This is supported by the statement of Ldo and Nabell (2023) who state that one factor affecting work motivation is when employees receive training. This training is held with the hope that it can foster motivation and increased workability, as well as increase knowledge and experience so that enthusiasm in carrying out work. Research conducted by Wiyono et al. (2025) shows that after being given training, respondents become more positive because more respondents agree with statements containing a growth mindset than a fixed mindset. This finding is interesting because, in just a short time, there has been a change in the mindset of teachers (Agusta, 2014). In a relatively long time, it will be very likely that these changes will become more positive and tend to persist. Work motivation is one element that greatly affects an employee's performance. This is in line with research conducted by (Graham et al., 2025) who found that work motivation positively affects the performance of vocational teachers to a great extent. In a dynamic and competitive work environment, work motivation is a crucial factor that influences employee productivity, performance, and well-being (Sahu et al., 2024). However, many workers experience a decline in motivation due to various challenges, such as job pressure, monotonous routines, limited opportunities for growth, and a lack of organizational support. When motivation decreases, employees tend to feel stressed, lose initiative, and show lower performance, ultimately

affecting the organization's overall success ([Satumalay & Khaerudin, 2025](#)).

One psychological approach that can help boost work motivation is the application of a growth mindset, that is the belief that abilities and skills can develop through effort, effective strategies, and learning from experience ([Nurlita, 2019](#)). Individuals with a growth mindset tend to be more persistent when facing challenges, less likely to give up, and more focused on self-improvement ([Rinadra et al., 2023](#)). However, there is still limited research on the direct impact of a growth mindset on work motivation, particularly in the context of the Indonesian workforce. This study aims to empirically examine the effect of a growth mindset on increasing work motivation ([Nasril, 2023](#)). Using a quasi-experimental method, this research compares motivation levels before and after growth mindset intervention and analyzes the differences between the experimental and control groups. The findings are expected to provide new insights into how a growth mindset can be an effective strategy for enhancing work motivation, both at the individual and organizational levels. Based on the description above, researchers are interested in conducting the current study. In this study, the first hypothesis is whether there is a growth mindset to increase work motivation. Second, are there differences in experimental groups that have been given growth mindset treatment to increase work motivation?

Method

Research Design

This study employed an experimental research design with a quantitative approach to investigate the effectiveness of growth mindset training on work motivation. The research utilized a quasi-experimental design, specifically the untreated control group design with dependent pre-test and post-test samples. This design is suitable for assessing the impact of an intervention by comparing the changes within and between groups before and after treatment ([Rachman et al., 2024](#)). The population consisted of individuals from a defined organizational setting, from which the research subjects were drawn. Participants were selected using purposive sampling based on inclusion criteria relevant to the study objectives. After selection, subjects were randomly assigned to one of two groups: the experimental group, which received the growth mindset intervention, and the control group, which did not receive any treatment. Prior to the intervention, all participants completed a work motivation scale, and the results were recorded as the pre-test scores. The experimental group then underwent a growth

mindset training program, which included conceptual modules, practical implementation strategies, and cognitive exercises designed to foster flexible and resilient thinking in the face of work-related challenges. The control group continued with their regular activities and did not receive any form of psychological training during the study period.

Research Subjects

The subjects of this study were 28 workers comprising both men ($n = 12$; 42.90%) and women ($n = 16$; 57.10%) were divided into two groups that is experimental group workers with growth mindset training and control group students who were not given training having 14 individuals in each group. Workers aged 17-30 years ($M = 22.0$, $SD = 2.70$) in Samarinda because workers at this age are very productive and motivated at work and 15 subjects (53.60%), ages 21-25 years, while 9 people (32.10%), ages 26-30 years totaling 4 people (14.30%). In addition, subjects of this study consisted of workers with a long working span of < 6 months totaling 13 people (46.40%), 6 months – 1 year, totalling 7 people (25.00%), 2 years – 4 years totalling 8 people (28.60%).

Procedure

The data collection method used in this study is an instrument measurement tool, namely a work motivation scale. Data collection in this study was carried out on workers of 28 people were divided into 14 people in the control group and 14 people in the experimental group. The test aims to obtain measuring instruments' accuracy when performing their measuring functions. Trials are carried out to test the hypothesis of a study using data in the form of valid items or items only for analysis. Data collection in this study uses the Likert scale, which has two properties, favourable and unfavorable, with four alternative answers: very appropriate, appropriate, inappropriate, and wildly inappropriate.

Results

A descriptive analysis of frequency distribution and histogram was conducted to get a subject demographic picture and descriptive of research variables, namely research to increase worker motivation with growth mindset training. This was done to determine the difference in work motivation before and after providing growth mindset training workshops to workers. It was found that there was a significant

difference in the average value of work motivation of the experimental group between before and after growth mindset training in workers, which showed an increase in work motivation. The distribution of descriptive test data shows that the average pre-test score for experimental group work motivation is 62.79, while the average experimental group work motivation is 66.36, which means that experimental group work motivation in the post-test is better than the pre-test. In the control group, it was found that there was a significant difference in the average value of work motivation of the control group, and workers who were not given treatment showed a decrease in work motivation. The distribution of descriptive test data showed that the average pre-test score of the control group's work motivation was 74.79, while the average work motivation of the control group was 71.64, which means that the control group's work motivation in the post-test was lower than the pre-test.

The overall results of obtaining the work motivation score of each subject in the control group can be seen in [Table 1](#).

Table 1: *Distribution of Control Group Pre-Test and Post-test Score Data*

Subjects	Pre-test	Classification	Post-test	Classification	Status
1	72	Very High	71	Tall	Decreased
2	73	Very High	76	Very High	Increase
3	73	Very High	68	Tall	Decreased
4	77	Very High	67	Tall	Decreased
5	75	Very High	66	Tall	Decreased
6	74	Very High	70	Tall	Decreased
7	71	Tall	73	Very High	Increase
8	71	Tall	66	Tall	Decreased
9	69	Tall	73	Very High	Increase
10	82	Very High	79	Very High	Decreased
11	72	Very High	72	Very High	Equivalent
12	80	Very High	73	Very High	Decreased
13	76	Very High	75	Very High	Decreased
14	82	Very High	74	Very High	Decreased

Based on [Table 1](#) above, there are differences between workers who are not given treatment in the pre-test and post-test. Ten subjects experienced a decrease in work motivation, 3 subjects experienced an increase in work motivation, and there was 1 subject who had an equivalent (fixed) score.

Hypotheses Testing

The main hypothesis proposes that a growth mindset has a significant effect on work motivation. In contrast, the null hypothesis assumes that a growth mindset does not have any significant impact on motivation. To explore this further, the research also tests two specific hypotheses. The first specific hypothesis focuses on the experimental group, suggesting that there will be a significant difference in work motivation before and after the growth mindset intervention. The null counterpart of this hypothesis states that no such difference exists within the group after receiving the training. The second specific hypothesis compares the experimental group, which received the growth mindset training, with a control group that did not receive any treatment. This hypothesis assumes that a significant difference in work motivation will be found between the two groups. Meanwhile, the null hypothesis asserts that no meaningful difference exists between them. Through these hypotheses, the study aims to assess the effectiveness of growth mindset training in improving work motivation, both by observing changes within individuals who underwent the intervention and by comparing them to those who did not. Statistical analysis is then used to support or reject each hypothesis, providing empirical evidence to inform future psychological practices in the workplace.

An assumption test is first carried out, which consists of a normality test and a homogeneity test. This test aims to test whether data is normally distributed. The Normality Test, if the data sample is below 50 people, can be done by comparing the probability of Saphiro Wilk value with 0.05 (5%). The rule is that if $p > 0.05$, the spread is normal; however, if $p < 0.05$, then the spread is abnormal. It was found that the distribution normality test results against the experimental pre-test resulted in $p = 0.674$ ($p > .05$). Test results based on rules show that the distribution of work motivation data is expected. Furthermore, the Pre-Test Control normality assumption test results yielded $p = 0.180$ ($p > .05$). Test results based on rules show that the distribution of work motivation data is expected. So it can be concluded that the results of the Pre-Test Experiment and Pre-Test Control tests have a normal distribution of data, but the number of subjects < 30 people; thus, non-parametric data analysis must be carried out because it does not meet the requirements for the minimum number of subjects.

Homogeneity test aims to determine whether or not the distribution variations in data are the same. The rule used is that if $p > .05$, then the data distribution is homogeneous; on the other hand, if $p < .05$, then the data distribution is not homogeneous. It was found that the results of the homogeneity test on the distribution of control and experimental

pre-test data produce values = 0.227 ($p > .05$), which means that the distribution of work motivation data is expressed homogeneity. After the assumption test, researchers tested the hypothesis using the Wilcoxon Signed Rank Test and the Mann-Whitney U-Test. that the results of the hypothesis test obtained results in the distribution of pre-test and post-test experimental group work motivation test data, resulting in a value of 0.050 ($p < .05$) shows significant work motivation changes after training, means there is a difference before and after growth mindset training to increase work motivation. This proves that the hypothesis in this study is accepted, namely that there is an increase in growth mindset towards work motivation. The results on the distribution of pre-test and post-test control group work motivation test data resulted in a value of = 0.028 ($p < .05$) showed significance, namely work motivation changed when not given treatment means there was a difference when the subject was not given growth mindset treatment to increase work motivation.

The second hypothesis in this study was to determine the difference between the experimental group that had been given growth mindset treatment and the control group that had not. Results showed that post-test scores in the experimental and control groups obtained value of 0.005 ($p > .05$) declaring that there are differences between the experimental group that has been given growth mindset treatment and the control group that has not.

Discussion

This research explores the impact of growth mindset training on work motivation, employing a pretest-posttest control group design (Noll et al., 2020). The study design enables a structured comparison between individuals who underwent a growth mindset intervention and those who did not, providing insights into the transformative role of cognitive orientation in enhancing motivational dynamics within the workplace (Sulthon & Sovitriana, 2023). Growth mindset, posits that individuals who believe in the malleability of their abilities are more likely to persevere through challenges, adopt learning-oriented behaviors, and maintain high levels of motivation. The application of this framework in a professional setting seeks to examine whether instilling such a mindset can lead to measurable improvements in employee motivation (Ahmed et al., 2025).

The experimental group received structured training interventions designed to promote a growth mindset (Putri et al., 2024). These interventions likely included activities such as reflective journaling, goal-setting exercises, cognitive restructuring, and exposure to case

studies of individuals who achieved success through effort and persistence. These techniques aimed to recalibrate participants' internal belief systems about personal development and achievement. In contrast, the control group did not receive any growth mindset-related training (Ernawati et al., 2025). Their routine remained undisturbed, allowing researchers to observe natural fluctuations in motivation levels, which could stem from environmental factors, seasonal changes in workload, or personal circumstances. This design enabled the identification of any confounding variables that might influence motivation (Mohamed et al., 2025).

The findings suggest that both the experimental and control groups experienced changes in work motivation (Wiyono et al., 2024). However, it is the nature, direction, and magnitude of these changes that provide the most valuable insights. The presence of significant change in the control group without direct intervention is particularly interesting and warrants deeper exploration (Marques, 2023). One possible explanation for the motivational shift within the control group is the phenomenon known as the Hawthorne effect. This effect suggests that individuals modify aspects of their behavior simply because they are being observed in a study, rather than as a direct result of experimental manipulation. Awareness of participation in a research project may inadvertently boost motivation, at least temporarily (Gill, 2022). Alternatively, workplace dynamics independent of the study could have influenced motivation (Suprpto & Verdyana, 2020). For example, organizational events, changes in leadership, or team dynamics could have led to shifts in perceived support or goal clarity, which are known antecedents of motivation (Lijster et al., 2022). These environmental factors highlight the complex interplay between internal and external drivers of employee behavior (Mammarella et al., 2021). Nonetheless, the observed difference between the experimental and control groups following the intervention strongly supports the hypothesis that growth mindset training yields a unique and measurable effect on work motivation. The intervention appears to offer not just a short-term boost, but potentially a reframing of cognitive processes related to effort, success, and failure (Unni & Thomas, 2020).

From a theoretical standpoint, the findings align well with self-determination theory which emphasizes the importance of intrinsic motivation (Mobolade & Akinade, 2021). Growth mindset principles nurture a sense of autonomy and competence two of SDT's fundamental psychological needs. When employees believe they can improve through effort, they are more likely to take initiative and seek mastery in their roles (Sulthon & Sovitriana, 2023). Moreover, the implications of these findings are profound for organizational

development and human resource strategies. Companies striving to enhance employee motivation may consider investing in mindset-based interventions as part of broader training and development programs. Growth mindset training can be integrated into onboarding, leadership development, and performance review processes ([Adpebi, 2024](#)). The study also opens up new possibilities for addressing motivational stagnation and disengagement. In environments where traditional incentives such as monetary rewards and promotions may have diminishing returns, psychological interventions offer a sustainable alternative to renew enthusiasm and goal orientation ([Setianingtyas & Darokah, 2013](#)). The method used in this study is a growth mindset. [Marsandya \(2024\)](#) explains aspects of a growth mindset: intelligence, talent, and character; challenges, difficulties, and failures; beliefs about effort and hard work; and beliefs about criticism and input. Then [Ldo and Nabell \(2023\)](#) explained aspects of work motivation: discipline, high imagination, self-confidence, resistance to pressure, needs, and a sense of security.

An additional point of discussion centres on the scalability of such interventions. If a brief and focused training session can produce significant motivational changes, organizations could replicate this across departments or locations with minimal cost and time investment ([Wiyono et al., 2025](#)). This could democratize access to personal development tools and reinforce a culture of continuous improvement. Sustainability of the motivational effects remains a question. Long-term follow-up studies would be essential to determine whether the effects of growth mindset training persist over time or require periodic reinforcement ([Wiyono et al., 2024](#)). Organizations might need to develop maintenance programs, such as periodic workshops or mentorship circles, to embed the growth mindset as a cultural norm ([Graham et al., 2025](#)). It is also important to consider individual differences in receptivity to mindset training. Not all participants may internalize the training content equally ([Sahu et al., 2024](#)). Personality traits, prior experiences, and existing motivational baselines could moderate the impact of the intervention, leading to varied outcomes among employees. This raises the need for tailored interventions ([Carron & Spink, 2016](#)). Just as one-size-fits-all training programs often fall short, growth mindset interventions may benefit from customization based on role, industry, and individual learning preferences ([Priyotomo et al., 2019](#)). Pre-assessment tools could help identify those most likely to benefit and inform instructional design accordingly ([Marsandya, 2024b](#)). Integration of growth mindset principles into managerial practices could enhance effectiveness ([Sidiq & Abdullah, 2022](#)). Managers who model growth-oriented behavior

and provide constructive feedback foster a psychological climate that reinforces training outcomes. Leadership commitment is thus essential for sustaining change (Rinadra et al., 2023). While the results support the efficacy of growth mindset training, they also highlight the complexity of motivational processes (Firnando & Suhesty, 2024). Motivation is not solely a product of internal belief systems but emerges from the continuous interaction between individual, task, and contextual variables (Adriansyah et al., 2025). Recognizing this complexity is vital for translating research into effective practice (Nasril, 2023).

Another dimension worthy of discussion is the emotional component of motivation. Growth mindset training may indirectly influence emotional resilience, enabling individuals to recover more quickly from setbacks and maintain engagement (Mahmudah et al., 2025). Emotional regulation is a key aspect of sustained motivation, particularly in high-stress or high-responsibility roles (Kasman, 2021). Considering the findings, organizations might also explore the relationship between mindset orientation and other psychological constructs such as optimism, self-efficacy, and psychological capital. These interrelated concepts can create a holistic foundation for positive employee functioning and well-being (Fauzi et al., 2023). The study also supports the idea that non-cognitive skills deserve a central place in professional development (Adriansyah et al., 2023). Often overlooked in favour of technical competencies, attributes such as resilience, persistence, and adaptability are increasingly recognized as vital to performance. Mindset training targets exactly these areas. Ethically, the implementation of such training should be approached with care (Marsandya, 2024a). While promoting a growth mindset is generally beneficial, unrealistic expectations or excessive pressure to always improve could backfire. Employees must feel supported, not judged, in their development journey. A notable strength of the study lies in its methodological design. By comparing both within-group and between-group differences, the researchers ensured robust evidence for their conclusions. This layered approach adds credibility and enhances the generalizability of the findings (Ldo & Nabell, 2023).

Limitations and Suggestion

Nonetheless, limitations should be acknowledged. The sample size, setting, and duration of the study may restrict the extent to which conclusions can be applied across diverse organizational contexts. Future research could expand on these variables to test the universality of the intervention's impact. It would also be beneficial to include qualitative data in future studies. Interviews or open-ended surveys

could provide deeper insights into how participants internalize and apply the training content in real work situations. Narratives often reveal nuances that statistical data alone cannot capture. Several things need to be improved so that the implementation of further research can provide more optimal results, including that subjects should be able to improve their growth mindset by rereading the material given and applying it in their daily lives to maintain work motivation within themselves. Researchers are expected to use statistical model experiments to examine moderation and mediation factors that might influence the relationship between growth mindset and work motivation to provide a deeper understanding of the mechanisms behind these effects. Further, researchers can expand the scope of research to various contexts and industries related to differences in work environment, job demands, and corporate culture, which can moderate the relationship between growth mindset and work motivation. The workforce office that houses workers in Samarinda is expected to encourage agencies to build career or self-ability development programs, provide facilities that support work-life balance for employees, and create a positive work environment to increase employee motivation. For future research, it is recommended to conduct longitudinal studies to examine the long-term impact and sustainability of growth mindset interventions on work motivation across various organizational contexts. The implication of this research is that organizations can consider integrating growth mindset training into employee development programs as a practical and cost-effective psychological intervention to enhance motivation and overall workplace performance.

Implications

Importantly, this study contributes to bridging the gap between educational psychology and organizational behaviour. Growth mindset, originally developed in academic contexts, is shown here to have practical relevance in workplace settings ([Adinda et al., 2023](#)). Such interdisciplinary applications underscore the universality of psychological principles. Given the global shifts in work culture especially after the COVID-19 pandemic mindset interventions take on new significance ([Hennein, 2023](#)). As remote work, uncertainty, and rapid technological change redefine the world of work, adaptable and motivated employees become organizational assets. Growth mindset interventions can serve as a psychological anchor in times of change ([Gnall, 2022](#)).

Conclusion

The findings of this study conclude that growth mindset training has a significant effect on increasing work motivation among workers in Samarinda, as evidenced by the improvement in motivation levels both within the experimental group and in comparison, to the control group.

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