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Thinking Styles and Work Performances of Accountants in their Workstations

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Abstract

The influence of three thinking style approaches towards the level of work performance alongcounterproductive behavior, contextual and individual tasks of twenty-four accountants in government offices situated in Naga City during the Fiscal Year 2024 was determined using descriptive-correlational method. Findings indicated a strong significant relationship exists between thinking styles and work performances of government accountants. This meant that each thinking style is significantly correlated with the work performance of accountants. The use of a particular thinking style is dependent on a particular situation or task assigned to accountants. The extent of influence of the three thinking styles towards the aspects of work performance was moderately low as indicated in the statistical analyses. Comparable traits exhibited by accountants are connected to their choice of thinking style approach to accomplish tasks or to cope with problems. The use of specific thinking style approaches of accountants was molded in their homes, schools and workplace. Furthermore, a very satisfactory level was achieved for all three aspects of Work Performances of Accountants.

Keywords: Thinking Styles, Work Performance, Accountants

Introduction

Thinking styles is one aspect of individual differences. Thinking, as an epitome of humans, is the exercise of the powers of judgment, conception and influence. Perception, problem-solving, learning and communication are affected by what an individual's thinking style is. It is a personal preference for how to use one's intellect and talent. The constructs of this concept expand to the notion of what people prefer to do rather than what people can do. Some thinking style could be a source that encourages productivity among employees. However, others may diminish creativity. Thus, one of the roles of thinking styles is to show how it affects learning preferences and how individual abilities to learn should be recognized and respected.

Individual work performance covers how well an employee executes his job duties and responsibilities. This is one factor that critically affect the success of an organization, overall productivity improvement, profitability and employee morale. Assessment of work performance regularly can help the organization in identifying areas that need improvement, provide training and support to employees, and ensure that everyone is working towards the same goals. Work performance has become more and more popular in organizations in the last several years. Managers are continually working hard to attract, develop, and



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retain outstanding performers in order to maintain exceptional productivity, given the increasing competition both inside and across different industries. Job requirements use standards to assess how effectively an individual meets expectations and measure work performance in both objective and subjective terms.

Nowadays, organizations are challenged by a range of complexities. As a result, they need to raise awareness of the individual variations inside the company as well as other factors like education, experience, and skills like social and emotional intelligence as well as personality. Individual differences have the potential to foster innovation among employees or serve as a catalyst for problems inside the firm. Additionally, it is critical that a company prioritize hiring people who will perform well, fit in well, and can handle challenges in the workplace. As a result, businesses are urged to set up, create, and construct a workspace that is capable of handling complex issues.

Furthermore, individuals perceive modes of interaction with others and with things in the environment to be more rewarding than others. To some extent, the environment and society structure tasks that benefit one style or another in a given situation. Thus, process interaction may also be affected on how individuals thinkin a given societally imposed task. The uniqueness of every person may result in a conflict among the people in the environment they belong to. Organizations need to know how to acquire and manage their people. Additionally, Rodrigues et al. (2019) has provided evidence that thinking styles are reflected in styles of teaching, learning and working. Their study strongly suggests that thinking styles forecast both the quality and quantity of performance. It was a practice before that employee performance was viewed as the result of a mix of aptitude and motivation when given with adequate resources, and therefore motivating people became an important part of management.

Due to the paucity of knowledge regarding the impact of thinking styles on productivity in the workplace, the researcher had to investigate a few pertinent possibilities. It is critical to analyze the connection between thinking styles and work performances. In order to solve problems with work performance, employee motivation, and engagement, a thorough understanding of thinking styles is essential. In this regard, the concept of thinking styles with Certified Public Accountants (CPAs), or in the field of accounting, in general was explored in this study.

As cited by Dai and Vasarhelyi (2017), the accounting profession and accountants serve the public interest by being held to higher standards of accountability than just making a living. This is what distinguishes an accounting profession from a mere means of subsistence. Accounting is a field that requires the greatest standards of impartiality and honesty since it entails more than justapplying the rules and regulations mechanically. It also involves making complicated judgments that are both quantitative and qualitative. Therefore, government accountants, including those in Camarines Sur, view ethics as being of the utmost importance in their professional practice, just like all other accountants in the private and academic sectors. Despite the lack of studies in the locale, the personal experiences of the researcher would attest that accountants employed in government agencies in Naga City are dedicated and motivated in the practice of the accountancy profession and in the performance of their



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assigned tasks. These conditions motivated the researcher to explore the influence of thinking styles of accountants towards how they perform, solve issues and make decisions.

Thinking Styles

Much has been written about thinking styles and many definitions have already been used. Studies have attempted to unravel the underlying controversies because of the unstable definition of thinking styles. Some issues of the studies on thinking styles previously lacks of distinguishability to other concepts such as abilities or personality traits and failed to give a common conceptual framework to base on. Hence, this section will provide a clear view at what a thinking style is all about through factual review.

There are three common approaches utilized in defining and evaluating the styles of thinking and learning (Rodrigues, et al., 2019). The first approach is known as the cognition-centered which deals with the cognitive styles which are the characteristic, self-consistent modes of functioning which individuals show in their perceptual and intellectual abilities. The second approach in learning styles is personality centered and deals with personality traits. The third approach isactivity-centered, and it is focused on the conception of —styles as mediators of various forms of activities that may arise from aspects of cognition and personality. Theories that relate to the third approach be likely to emphasize styles of teaching and learning.

Related literatures have explored the concept ever since the mid-20th century. People are eager to know how to enhance performance in life and work contexts. Various thinking styles may affect learning, problem-solving, decision- making, communication, and interpersonal relationships (Tandler & Brauer, 2019). In this regard, it is important to understand the differences in thinking styles of individuals. Understanding it and its effects can assist in creating a more effective life and work environment.

Furthermore, a better understanding of thinking styles makes it more likely that people will adapt certain styles that are appropriate in a given circumstance. This helps people realize that thinking styles can be expanded and modified to improve effectiveness (Hashmi, et al., 2018). People are anxious to learn how to perform better in both business and personal settings. As a result, applying a particular way of thinking under particular circumstances may increase the possibility of improving results or performance.

In connection with this, scholars have studied, developed, and introduced the concept of thinking styles about understanding individual differences in terms of creativity and innovation (Anderson, et al., 2014). Adaptors seek problem solutions that involve small adjustments or incremental modifications. They prefer to maintain the initial structure or paradigm and work with established procedures or constraints. Innovators, in contrast, prefer to restructure a problem by approaching it from a new angle. Research studies show moderate correlations between a preference for the innovative style and divergent-thinking tests of creativity.

It has been identified by several psychologists that the unique characteristics of an individual play a role in task completion, hence there should be a match between personality traits and the characteristics of the task to be done (Day, et al., 2014). The study investigated the relationship between thinking styles and personality types of third year students at Dokuz Eylül University who responded to the Thinking



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Styles Inventory. The results showed a close correspondence between thinking styles and personality types. It was also noted that thinking styles differ according to gender and major fields of study.

This is an era of risk and instability, especially in the business world. Within the framework of business, essential outcomes have been addressed by literatures regarding thinking styles which inevitably affected business and management practices. Thinking styles of individual may have a critical role in their capacity to effectively handle conflict. The implication of thinking styles towards group development, diversity, conflict management, and correlation to other variables such as interpersonal relationships and managerial functions have been recognized in relevant literatures (Willingham, et al., 2015).

Moreover, Deng et al. (2022) literature works have recognized the contribution of human thinking styles in some aspects of an organization such as effectiveness of managers. The styles that fit in a certain job and situation may lead to failure in another job with different situations. Additionally, they have cited that thinking styles are modifiable, measurable, teachable, and are socialized. Accordingly, people may change their thinking styles as they interact with the environment and other people.

Today's organizations operate in an increasingly uncertain and tumultuous global market economy that requires managers to demonstrate complex and multidimensional thinking, requiring traditional analytic or linear thinking skills, as well as more nonlinear modes such as intuition, insight, emotional assessments, creative thinking and perceptual flexibility (Leung, et al., 2014). The understanding of thinking styles can have a significant impact on how an organization creates training materials to improve employees' abilities and expertise. Consequently, organizations must provide their employees opportunities to develop their skills as well as thinking to strengthen performance, creativity, and innovation. In addition, in order to improve team performance, human resource professionals might evaluate other individual traits using specific tools.

Work Performance

Organizations are continuously facing intensive and shifting environment due to certain factors like evolution in technology, cultural and social development. Individual work performance is significant in evaluating workplace outcomes. It is one of the factors that should be considered because of its contribution to productivity and efficiency of an organization. However, its measurement and conceptualization has proven difficult.

Work performance is defined as a collection of goals, activities that are observable and measurable, and that are controlled by the individual and whose aims are in line with the needs of the organization. When discussing the subject, conceptual and empirical alignment is not always established. This could be because work performance is a theoretical construct that is complex, multifaceted, and dynamic in nature. Additionally, because of its dynamic and adaptable nature, it should be handled not only completely but also by emphasizing other aspects and utilizing dynamic instruments, such as a temporal perspective, with instantfeedback to enable interventions seeking benefits as soon as feasible (Sandall, 2022).



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Related literature provides that an employee's effectiveness is critical to an organization's ability to successfully navigate a dynamic and changing environment (Jedynak, et al., 2021). However, work performance is influenced by many other factors.

In addition to organizational factors (such as organizational structure, environment, policies, and culture), group factors (such as relationships, leadership, and power, as well as group behavior and conflict behavior), and job satisfaction, work performance is determined by its characteristics. Trend in transformation should be anticipated by organizations so that changes will be directed in their favor.

Hence, individual performance is influenced by human cognitive ability, human expertise, stress, and mental workload, general human performance theory and motivation (Reiman, et al., 2021). It is a generally accepted notion that employees are most effective when they are satisfied. Motivation is related to stable and dispositional traits, such as conscientiousness, achievement motivation, emotional stability, and goal orientation.

Work performance refers to behaviors or actions of employees, rather than the outcomes of these actions. Similarly, IWP involves behaviors that are under the control of the individual, hence, excluding behaviors that are controlled by the environment. This includes counterproductive behavior tasks, contextual tasks and individual tasks. Counterproductive behavior tasks that encompass employee behavior that may undermine the goals and interests of an organization itself of the people that are working in it. Contextual performance task refers to voluntary behaviors exhibited by employees that are not directly part of their job responsibilities but contribute to the overall effectiveness of the organization. Individual Task include core job duties, and encompasses behaviors that are helpful, cooperative and supportive in nature. It is a work task of varying scopethat is assigned to an employee and whose work requirements are determined by job evaluation (Tweedie, et al., 2019).

Methodology

This study employed a descriptive-correlational methods of research. A descriptive methodology was employed to assess the thinking styles of accountants in terms of idealist, analyst and pragmatic thinking approaches. It was also utilized to determine the level of work performances of accountants with regard to activities including individual, contextual, and counterproductive work behavior. Concurrently, a training intervention program was developed, with the main objective being to improve accountants' thinking styles in relation to their productivity. The correlational method was utilized to determine the significant relationship between thinking styles and work performances of 24 accountants from five purposively selected government agencies in Naga City, Camarines Sur for Fiscal Year 2024. It was also applied to present the extent of influence of thinking styles have on work performance.

Results and Discussion

The Idealist approach had the highest average weighted mean among the three thinking style approaches (Table 1). This indicated that accountants' practice of idealist thinking style is more evident in accountants in the government service. Idealist and analyst approaches of thinking had the highest calculated weighted mean because accountants tend to have a broad and comprehensive view. This is mainly because of the inherentcharacteristics of accountants, developed or improved during the study



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and practice of the accountancy profession. These characteristics include a strong emphasis on accuracy, attention to detail, and a desire for objectivity, which are essential for making informed and responsible decisions. Additionally, accountants' analytical skills and ability to think critically also enable them to evaluate complex financial data and identify potential risks and opportunities.

Based on the Theory of Thinking Styles, idealist and analyst approaches of thinking are cautious and want to achieve the ideal goal using the best method possible. Accountancy as a profession is an absorbing activity, requiring people to have high standards of conscientiousness, related to a strong work performance across other professions. This conscientiousness criterion is frequently associated with performance, interpersonal facilitation, work dedication, and adherence to idealistic ethical principles. It encourages goal-oriented and task-oriented behavior, including deferring gratification, planning, organizing, and prioritizing activities, as well as thinking things through before acting.

On the other side of the spectrum, there is the Pragmatic style of thinking. The necessary judgement skills are only acquired through years of practice and experience. Therefore, in a strict sense, it is difficult for an accountant to be flexible in the implementation of a given rules and regulations especially if it would set a precedent. These form the framework thataccountants uphold. This explains the ranking received by the pragmatic style of thinking.

The Theory of Thinking Styles illustrates pragmatic thinking as one of the practical styles of thinking. Pragmatists break projects or goals into more manageable tasks. They tend to accomplish their tasks completely rather than leaving them half completed. However, because accountants are ethically and legally bound to the generally accepted accounting principles that govern the profession, practicality and flexibility are often taken for granted.

The Heuristic Framework of Individual Work Performance is comprised of task performance, contextual performance and counterproductive work behavior. These three dimensions This framework can be used in shaping the design of workplace interventions and assessing its effects on individual work performance of accountants. Table 2 presented the results of these three dimensions based on the rating given by the respondents.

The average weighted mean of contextual and counterproductive work behavior suggests that the respondents might not be interested in their day-to- day tasks, but in tasks which they found more interesting, and might give them an opportunity to work with their co-employees. They might take on tasks to make their roles more exciting. The highest average mean score obtained for counterproductive work behavior indicates that accountants perceived themselves as not behaving in ways that might harm the well-being of the organization. Organizational commitment and willingness affect the performance of government accountants. They also take into consideration the ethical dimension in the practice of accountancy profession.

Research has been done on the relationship of selected thinking styles and work performance of accountants as shown in Table 3. The data shows the r-vale and p-value, which represent the relationship between work performance and selected thinking styles such as idealist, analyst and pragmatic, across



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tasks involving individual, contextual, and counterproductive work behavior. The r-value describes the relationship between the variables with the p-value to ascertain if it is significant or not. A strong significant relationship between thinking styles and work performances of government accountants was obtained.

This influence suggests that each thinking style approach is significantly correlated with work performance. The majority of the participants suggested that individual thinking styles contributed significantly to individual performance. Accountants with all characteristics of styles have the same opportunity to perform well at work. The results, further implies that no particular style of thinking is good or bad. Thinking styles used are dependent on a particular situation or task assigned to accountants.

Using the Coefficient of Determination statistical tool, the extent of influence between thinking styles and work performance of accountants was assessed and shown in Table 4. Based on the results shown, the hypothesis that the thinking styles of the respondents influence their work performance must be accepted. This means that the thinking styles of the respondents moderately affects their work performances.

The study's findings are pertinent because some styles of thinking are supported by organizational goals that are connected to the culture and skill sets that the companies recommend. In the same way, companies might utilize the study's results to find out more about the distinct ways that each worker thinks and how it influences their productivity at work. It is possible for businesses to ascertain whether an individual possesses the necessary abilities to perform effectively in the workplace in this scenario. Because there is a diversity of thought within their workers, they may also be better at managing and valuing them.

The current study has shown its validity in assessing thinking styles and measuring work performance among government accountants at their workstations based on the Theory of Thinking Styles and the Heuristic Framework of Individual Work Performance. Accounting professionals share shared features regarding their preferred methods of work completion and problem solving, as demonstrated by the identification of prevalent thinking patterns among them. In this instance, businesses might be able to forecast which workers have the capacity to function well in a particular workplace. Considering the variations in thought types, organizations might know better how to appreciate and manage their employees.

Table 1.Respondents' Thinking Styles

ThinkingStyles	AWM	Int.	Rank
Idealist	3.52	A	1
Analyst	3.48	A	2
Pragmatist	3.28	A	3
OverallAverageWeighted Mean	3.42	A	



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Legends:

WM: Weighted Mean Range Verbal Interpretation
VI: Verbal Interpretation of Practices 3.26 to 4.00 Always (A)

Rk: Rank 2.51 to 3.25 Often (O)
1.76 to 2.50 Sometimes (S)
1.00 to 1.75 Rarely (R)

Table 2. Respondents' Level of Work Performance

Summary	AWM	Int.	Rank
CounterproductiveTasks	3.23	VS	1
Contextual Tasks	3.17	VS	2
IndividualTask	3.07	VS	3
OverallAverageWeig hted Mean	3.15	VS	

Legends:

WM: Weighted Mean

VI: Verbal Interpretation

Range

Verbal Interpretation

3.26 to 4.00

Outstanding (O)

Very Satisfactory (VS)

1.76 to 2.50

1.00 to 1.75

Poor (P)

Table 3. Relationship between Thinking Styles and Work Performances of Accountants

Variables	r-value	Int.	p-value	Int.
ThinkingStyles				
WorkPerformances	0.596	Strong	0.002	Significant

Significant when p-value is lesser than 0.005.

Legends:

r-value: Pearson Product- Moment Correlation of Coefficient result

p-value: test of significance at 0.05 alpha

Int.: verbal interpretation

Interpretation of r-value

Scale	StrengthofRelationship
0.81-0.99	VeryStrong
0.51-0.80	Strong
0.31-0.50	Moderate
0.01-0.30	Weak



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Table 4. Extent of Influence of Thinking Styles and Work Performance of Accountants

Variables	r-value	r ² -value	Int.
ThinkingStyles	0.506	25.250/	N. 1
WorkPerformances	0.596	35.36%	Moderately Low

Legends:

r-value: Pearson Product-Moment Correlation of Coefficient result
 r²-value: Pearson Product-Moment Correlation of Coefficient result

p-value: test of significance at 0.05 alpha

Int.: verbal interpretation

Interpretation of r²-value

ScaleEffect of Influence91% and aboveVery High71% to 90%Moderately High51% to 70%Moderate21% to 50%Moderately Low20% and belowVery Low

Conclusions

The results indicated that accountants always practice all of the selected thinking style approaches. The overall average weighted mean indicated that respondents always practice the thinking styles. However, accountants demonstrate a relatively higher weighted mean for the idealist approach compared to the analyst and pragmatic.

The results of all of the three dimensions of individual work performance indicated a very satisfactory rating. The overall weighted mean suggests a satisfactory rating for the work performance of accountants. All the aspects of work performance, however, were evaluated and interpreted at Very Satisfactory level. Furthermore, the dimension of counterproductive work behavior resulted to the highest weighted mean. The results indicate that accountants value their principles even in the performance of their tasks.

The results showed a strong correlation between thinking styles and work performance of accountants. The hypothesis that there is a significant relationship between the respondents' thinking styles and their work performance was accepted.

The statistical analyses indicate a moderate relationship between selected thinking styles and work performances of accountants. The accountants' thinking styles have a direct influence on their level of work performance. Thus, the hypothesis that the thinking styles of accountants influence their work performance was accepted. The influence of thinking styles on work performance contribute to how well an employee performs.

Recommendations

The study recommends that accountants should consider utilizing the questionnaire to gain a better understanding of their dominant thinking styles. The questionnaire may be cascaded in the Human Resource Section of the agency for easy administration to employees, other than accountants. The questionnaire may also be administered during orientations of newcomers or newly-hired employees.



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This will aid in ongoing improvements and ensure alignment of skills to tasks assignment. By addressing these recommendations, awareness of thinking styles of an employee can help management in supporting organization's performance, particularly raising awareness of thinking styles in the areas of recruitment, selection, placement and training development.

In addition, a conduct of employee-focused studies should be done to identify areas in which work performance can be improved. Management must apply continuous exploration and application of strategies of assessing, evaluating and monitoring of work performances of accountants. A reward or recognition system may also be employed. By focusing on these recommendations, organizations can further solidify its policies and standard operating procedures on evaluating and monitoring of performance of its employees.

Given the conclusions of this study, future research can be elaborated further by using a powerful methodology that aims to gain more binding results through several important steps. For example, identification of more precise thinking styles can be elaborated by giving each respondent a specific task and they would be asked to execute these tasks while thinking aloud. This would give more direct information about their way of approaching practical problems. The inclusion of the different industry types can be proposed to compare the degree of differences between industries. Also, the management suggests consider the thinking styles in recruiting employees and in deploying them to the appropriate departments or sectors that the company specific needs and at the same time, matches the best attribute of the thinking styles.

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References

- 1. Kumar, Audhesh M. (2014). Other Approaches in Accounting Theory.
- 2. Popescu, Cristina Raluca Gh. (Ed.). (2022). Handbook of Research on Building Inclusive Global Knowledge Societies for Sustainable Development.
- 3. Atatsi, Eli Ayawo, Stoffers, Jol, and Kil, Ad (2019). "Factors affecting employee performance: a systematic literature review." Journal of Advances in Management Research 16.3 (2019): 329-351. Available at cholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=atatsi+2019&btnG=
- 4. .Birsa, E. (2018). Teaching strategies and the holistic acquisition of knowledge of the visual arts. Center for Educational Policy Studies Journal, 8(3), 187-206. Available at https://www.cepsj.si/index.php/cepsj/article/view/39.
- 5. Deng, R., Benckendorff, P., & Gao, Y. (2022). Limited usefulness of learning style instruments in advancing teaching and learning. The International Journal of Management Education, 20(3), 100686. Available at
 - https://www.researchgate.net/publication/361830981_Limited_usefulness_of_learning_style_instruments_in_advancing_teaching_and_learning.



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- 6. Graves, Laura M. and Karabayeya, Asya (2020). "Managing virtual workers— strategies for success." IEEE Engineering Management Review 48.2: 166-172. Available at https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=graves+a nd+karabayeva&oq=graves+and+karaba.
- 7. Hill, J., Walton-Fisette, J.L., Flemons, M., Philpot, R., Sutherland, S. Phillips, S., Flory, S.B., & Ovens, A. (2022). Social justice knowledge construction among physical education teacher educators: the value of personal, professional, and educational experiences. Physical Education and Sport Pedagogy, 1-13.J. Available athttps://uobrep.openrepository.com/handle/10547/625500.
- 8. Jedynak, P. &Bak, S. (2021). Risk management in crisis: Winners and losers during the COVID-19 pandemic (p. 252). Taylor & Francis. Available at https://www.routledge.com/Risk-Management-in-Crisis-Winners-and- Losers-during-the-COVID-19-Pandemic/Jedynak- Bak/p/book/9780367674557.
- 9. Johari, A., Wahat, N.W.A., &Zaremohzzabieh, Z. (2021). Innovative work behavior among teachers in Malaysia: The effects of teamwork, principal support, and humor. Asian Journal of University Education (AJUE), 7(2), 72-84. Available at https://www.researchgate.net/publication/352211650
- 10. Johari, M.I., Rosli, R., Maat, S.M., Mahmud, M. S., Capraro, M.M., & Capraro, R. (2022). "Integrated professional development for mathematics teachers: a systematic review." Pegem Journal of Education and Instruction 12.4: 226-234. Available at https://scholar.google.com.
- 11. Kim, E. & and Kim, K.M. (2015) "Cognitive styles in design problem solving: Insights from network-based cognitive maps." Design Studies 40: 1-38. Available athttps://www.sciencedirect.com/science/article/abs/pii/S0142694X1.
- 12. Kim, M. (2014). Family background, students' academic self-efficacy, and students' career and life success expectations. International Journal for the Advancement of Counselling, 36, 395-407. Available at https://psycnet.apa.org/record/2014-37515-001.
- 13. Kozhevnikov, M., Evans, C., &Kosslyn, S. (2014). Cognitive style as environmentally sensitive individual differences in cognition: A modern synthesis and applications in education, business, and management. Psychological science in the public interest, 15(1), 3-33. Available at https://pubmed.ncbi.nlm.nih.gov/26171827/.
- 14. Mambetkarimov, R.R. (2022). The relationship between the development of analytical thinking and problem-based learning in quality education. Conferencea, 77-81. Availableat https://conferencea.org/index.php/conferences/article/view/1821.
- 15. McDowell, J. (2015). Masculinity and non-traditional occupations: Men's talk in women's work. Gender, Work & Organization, 22(3), 273-291. Available at https://onlinelibrary.wiley.com/doi/abs/10.1111/gwao.12078.
- 16. Proyer, R., Tandler, N., & Brauer, K. (2019). "Creativity and Humor." Available at https://www.researchgate.net/publication/324173606_Playfulness_and_c reativity_A_selective_review.
- 17. Reiman, A., Kaivo-oja, J., Parviainen, E., Takala, E.P., &Lauraeus, T. (2021). Human factors and ergonomics in manufacturing in the industry 4.0 context—A scoping review. Technology in Society, 65, 101572. Available at https://www.sciencedirect.com/science/article/pii/S0160791X2100047.
- 18. Rodrigues, H., Figueiredo, V., Almedia, F., & Lopes, S. (2019). "Tracking e-learning through published papers: A systematic review." Computers & Education 136: 87-98. Available at https://www.researchgate.net/publication/342851482_Tracking_elearningthrough_published_papers _A_systematic_review.



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- 19. Sandall, Hugo Sandall, Maourao, Luciana and Queiroga, Fabiana (2022). "A Comprehensive Approach to Job Performance in the Service Sector: A Systematic LiteratureReview." Available athttps://www.researchgate.net/publication/361082044_A_Comprehensive_Approach_to_Job_Performance_in_the_Service_Sector_A_Systematic_Literature_Review.
- 20. Saranya, Patricia & Vasantha, Sam (2023). Adoption of Digital Transformation on Employee Performance–Systematic Review. In International Conference on Emerging Trends in Business and Management (ICETBM 2023) (pp. 396-404). Atlantis Press.Available athttps://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=importance+of+employee+moti vation+saranya&btnG.
- 21. Willingham, D., Hughes, E. &Dobolyi, D. (2015). The scientific status of learning styles theories. Teaching of Psychology, 42(3), 266-271. Available at https://journals.sagepub.com/doi/abs/10.1177/0098628315589505.
- 22. Zhang, X., Chen, X., & Zhang, X. (2018). The impact of exposure to air pollution on cognitive performance. Proceedings of the National Academy of Sciences, 115(37), 9193-9197.

 Available at https://pubmed.ncbi.nlm.nih.gov/30150383/.
- 23. Abualoush, S., Bataineh, K., &Alrowwad, A. (2018). The role of knowledge management process and intellectual capital as intermediary variables between knowledge managementinfrastructure and organization performance. Interdisciplinary Journal of Information, Knowledge, and Management, 13, 279-309. Available at https://www.researchgate.net/publication/327845263_The_Role_of_Knowledge_Management_Infrastructure_and_Organization_Performance.
- 24. Aljojo, N. (2017). Differences in styles of thinking 'In Light of Sternberg's Theory': A case study of different educational levels in Saudi Arabia. JOTSE, 7(3), 333-346. Available at https://www.researchgate.net/publication/319881542_Differences_in_styles_of_thinking_'In_Light_ of_Sternberg's_Theory'_A_case_study_of_different_educational_levels_in_Saudi_Arabia.
- 25. Anderson, N., Potočnik, K., & Zhou, J. (2014). Innovation and creativity in organizations: A state-of-the-science review, prospective commentary, and guiding framework. Journal of management, 40(5), 1297-1333. Available
 - athttps://www.researchgate.net/publication/260275534_Innovation_and_Creativity_in_Organizations_A_StateScience_Review_Prospective_Commen tary_and_GuidFramework.
- 26. Avsec, S. & Szewczyk-Zakrzewska, A. (2017). Predicting academic success and technological literacy in secondary education: A learning styles perspective. International Journal of Technology and Design Education, 27, 233-250. Available at https://eric.ed.gov/?id=EJ1142128.
- 27. Cropanzano, R., Anthony, E.L., Daniels, S.R., & Hall, A.V. (2017). Social exchange theory: A critical review with theoretical remedies. Academy of management annals, 11(1), 479-516. Available at https://psycnet.apa.org.
- 28. Day, D., Fleenor, J.W., Atwater, L.E., Sturm, R.E., & McKee, R. A. (2014). Advances in leader and leadership development: A review of 25 years of research and theory. The leadership quarterly, 25(1), 63-82. Available at https://psycnet.apa.org/record/2013-41926-001.
- 29. Eliyana, A., &Ma'arif, S. (2019). Job satisfaction and organizational commitment effect in the transformational leadership towards employee performance. European Research on Management and Business Economics, 25(3), 144-150. Available at https://www.sciencedirect.com.



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- 30. Ganimian, A. & Murnane, R. J. (2016). Improving education in developing countries: Lessons from rigorous impact evaluations. Review of Educational Research, 86(3), 719-755. Available at https://psycnet.apa.org/record/2016-36534-003.
- 31. Hashmi, A., Ishak, H. and Hassan, H.B. (2018). "Role of team size as a contextual variable for the relationship of transformational leadership and teamwork quality." Asian Journal of Multidisciplinary Studies 6.5: 76-81. Available at https://scholar.google.com. Retrieved November 8, 2023.
- 32. Helfat, C.E., &Peteraf, M.A. (2015). Managerial cognitive capabilities and the microfoundations of dynamic capabilities. Strategic management journal, 36(6), 831-850. Available at https://onlinelibrary.wiley.com/doi/abs/10.1002/smj.2247.
- 33. Kautz, T., Heckman, J.J., Diris, R., Weel, B. &Borghans, L. (2014). "Fostering and measuring skills: Improving cognitive and non-cognitive skills to promote lifetime success." Available at https://www.oecd.org/education/ceri/.pdf. Retrieved: Decmber 4, 2023.
- 34. Khodarahmi, S.M. & Mokhtari, A. (2013). A social work study on relationship between thinking styles, self-esteem and socio-economic conditions among university students. Management Science Letters, 3(7), 1997- 2000. Available
 - athttps://www.researchgate.net/publication/307788247_A_social_work_study_on_relationship_b etween_thinking_styles_selfeconomic_conditions_among_university_students. Retrieved November 11, 2023.
- 35. Kim, J. & Ryu, H. (2014). A design thinking rationality framework: Framing and solving design problems in early concept generation. Human–Computer Interaction, 29(5-6),516-553.
 - Available athttps://psycnet.apa.org/record/2014-25854-005. Retrieved May 11, 2024.
- 36. Leung, K., Ang, S., & Tan, M.L. (2014). Intercultural competence. Annu. Rev. Organ. Psychol. Organ. Behav., 1(1), 489-519. Available at https://www.scirp.org/reference/referencespapers?referenceid=26863.
- 37. Meng, J. & Berger, B. (2019). The impact of organizational culture and leadership performance on PR professionals' job satisfaction: Testing the joint mediating effects of engagement and trust. Public Relat Rev. 45:64–75. Available at https://instituteforpr.org/the-impact-of-organizational-culture-and-leadership-performance-on-job-satisfaction/.
- 38. Ohei, K. (2014). An investigation into the application of appropriate information systems research methodologies of IT/IS and MBA mini-dissertations at North West University (Doctoral dissertation, North-West University). Available
 - athttps://repository.nwu.ac.za/bitstream/handle/Ohei_K.pdf?sequen.
- 39. Rodríguez-Rey, R., Palacios, A., Alonso-Tapia, J., Pérez,E....& Llorente, A. (2019). Burnout and posttraumatic stress in pediatric critical care personnel: prediction from resilience and coping styles. Australian critical care, 32(1), 46-53. Available at https://pubmed.ncbi.nlm.nih.gov/29605169/.
- 40. Thompson, A.E., and Voyer, D. (2014) "Sex differences in the ability to recognize non-verbal displays of emotion: A meta-analysis." Cognition and Emotion28.7 (2014):1164-1195.

 Available at https://pubmed.ncbi.nlm.nih.gov/24400860/.
- 41. Uhl-Bien, M. (2014). Followership theory: A review and research agenda. The leadership quarterly, 25(1), 83-104. Available at https://www.sciencedirect.com/science/article/pii/S10489843130012.



E-ISSN: 2229-7677 • Website: www.ijsat.org • Email: editor@ijsat.org

42. Zollo, L., Rialti, R., Tron, A., &Ciappei, C. (2021). Entrepreneurial passion, orientation and behavior: The moderating role of linear and nonlinear thinking styles. Management Decision, 59(5), 973-994. Available at https://www.emerald.com/insight/content/doi/10.1108/MD-10-201500/full/html.