



# Communication Medium and Team Interaction Style During Pandemic COVID-19

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**Abstract.** There are still very limited studies in proving communication medium and team interaction style that could contribute towards pandemic Covid-19 in the context of organization. This research also seeks to determine the relationship between communication medium and team interaction style with pandemic Covid-19. This study uses the Self-Determination Theory as the main theory to further strengthen the relationship between each variable. Quantitative methods were applied in this study and data were collected through the distribution of questionnaires to 150 respondents, whom the participants are employees of Great Eastern Takaful Berhad (GETB). The findings reflected a significant relationship between communication medium towards pandemic Covid-19. The study also found no significant relationship between team interaction styles toward pandemic Covid-19. Hence, this study contributes to the field of communication through the establishment of a more comprehensive variables related to participation in training and adoption of innovation and help to develop the Self-Determination Theory.

**Keywords:** Communication · Communication medium · Team Interaction Style · Pandemic Covid-19 · Self-Determination Theory

## 1 Introduction

According to [1], currently, the global Covid-19 pandemic has horrified nations throughout the world. It was spread easily through humans contact and also through items that were exposed to the virus. Lockdowns and social distance policies have been enacted in several countries, as well as social distancing and “stay at home” regulations. These initiatives included Working from Home (WFH) and School from Home (SFH) as a means to stop the spread Covid-19.

Work from Home is an essential feature of the social distancing policy (WFH). Throughout the pandemic period, Malaysia has implemented the work from home concept commencing from March, 2020. Indeed, in the last ten years, the concept of Work from Home (WFH) has been a subject of debate and a focus of global research for scholars.

However, after the Covid-19 attack, this global phenomenon has gained greater attention and has become an alternative strategy for many organizations around the world.

Moreover, according to [14], several countries have decided to close down schools, colleges and universities as preventative measures against its spread. The United Nations (UN) claimed that education is another sector where the pandemic impacted the most. Worse still, the occurrence of school closures on a large scale are so unusual that they have disrupted the learning and teaching process. As a consequence, the government and other relevant organizations had to provide alternate educational methods to replace face-to-face engagement in a regular classroom.

Not all educational institutions are prepared for the sudden change. Some schools may have technology integrated with their regular face-to-face classes. However, some students are not familiar with online learning. Many lecturers and teachers are still learning on how to teach students through online. Nowadays, educational institutions are committed to keep up with technology by transitioning to new learning environments in parallel with advanced technology.

Furthermore, according to Kaushik and Guleria [2], Working from Home (WFH), School from Home (SFH), and Worship from Home (WFH) has been a beneficial move for the public as it keeps employees and students productive while also allowing them to maintain a work-study balance. Therefore, the goal of this research is to find out the communications medium and team interaction style during pandemic covid-19.

## 2 Problem Statement

During the pandemic, students and employees need to change their communication media and interaction styles with their team as stated by [3]. For a variety of reasons, people resist change. Even potentially beneficial changes can be perceived as uncomfortable or dangerous. However, the Covid-19 pandemic has forced students to immediately adjust to a new style of functioning within groups, and leaders have begun to address the problem quickly.

According to [4], for some leaders and organizations, it is still unclear what steps they should make or how to function effectively from a distance without physical interaction. Both companies and leaders find difficulties in handling the situation and at the same time need to maintain team performance.

According to [1], Zoom fatigue also known as video conferencing exhaustion is a mental and physical exhaustion caused by video conferencing. Several causes contribute to this fatigue, which is prolonged direct eye stare. For example, in the regular visual meeting, they spend several hours looking at each other, face to face but in a video conference or zoom meeting, they typically stare at each other more intensively at the screen throughout the entire meeting.

## 3 Research Question

1. What is the relationship between communication medium and pandemic Covid-19?
2. What is the relationship between team interaction style and pandemic Covid-19?

## 4 Research Objective

1. To identify the relationship between communication medium and pandemic Covid-19.
2. To determine the relationship between team interaction style and pandemic Covid-19.

## 5 Literature Review

### 5.1 Communication Medium

According to [5], communication is the process of conveying and describing the meaning. It is the interaction and sharing of ideas among group members. According to [6], all communications medium involve the mediation of subjectivities or messages. According to [7], human language is the most basic kind of communication between two people. It is how they communicate about their thoughts, feelings, information, and wishes. It asserts that without communication, there would be chaos, and then existence and society as we know it now would collapse. According to [8], although the concept of communication medium may be misunderstood in the English language, it refers to a model of information transmission based on cybernetics, while communicative action here refers to the execution of social action through the use of language, which also includes non-verbal indications and cultural items. According to [11], the practical application of this method is dependent on face-to-face communication contacts in the workplace, as well as its execution, thus connecting them with the surrounding environment, due to the standardized and anonymous qualities of digitally mediated communication. According to [10], recent technological developments have allowed people to communicate with each other in ways previously unimaginable. Furthermore, the new technology process has pros and cons such as, for instant messaging is fast and the effective is just for short-term interactions and communication, but when the discussion gets tough, people tend to leave the chat and pick up the phone.

According to [11], interfacing individuals or places is additionally seen as a means of communication. It is additionally considered an imperative primary control work, since without discussions among levels, offices, and workers, the organization cannot work easily and smoothly. According to Daniel [12], it implies that the participants reach a mutual understanding, not only encode and decode information, news, thoughts and feelings. The important thing is that they also create and share meaningful content in the messages they sent. According to [13], human activity, symbolic communication, or meaningful exchange, is the essence of symbolic interaction. The perspective of symbolic interaction attempts to understand human behavior from the perspective of the subject. According to [9], getting help virtually through the app means that those seeking help digitally relay their struggles to professionals. The professionals will then provide recommendations to individuals in a virtual way.

According to [14], during the pandemic, Working from Home (WFH) is the background to change communication between each other. Initially, communication was established face-to-face, and later transformed communication using informations and communications technologies as a medium or Computer Mediated communication (CMC). According to [15], there are several different types of media, and few different media options that can obtain mental health care. These are personal interaction, group meetings, and electronic applications. For example, when someone wants to talk in a private environment where no one else is present, they prefer face-to-face interaction. According to [16], companies must construct crisis information emotionally or unemotionally and choose the best communication method, be it video communication

or text communication. For companies that are facing the uncertainty of emergency communication and the complexity of planning fitting emergency articulations.

There are several important implications that can be drawn. According to [17], communication medium information transmitted by the media can sometimes be skewed due to time or space. Pointed out that when the media experience certain circumstances, the distinctive appearances of time and space are inserted in control relations. It can alter the recognition and demeanor of the beneficiaries of the data and open. The nature of the data stream may incorporate predispositions due to social issues. It implies that amid a widespread, the data gotten by the gathering of people may be restricted by transient and spatial deviations.

## 5.2 Team Interaction Style

According to [18], the team's style of interaction can affect performance by enhancing the ability of the team to apply to the unique knowledge and skills, as well as the degree to which they will create and consider others elective procedures strategies for managing tasks. According to [18], as two or more people who influence, depend on each other to perform the same task and the most important thing is to bring together a group of people with similar abilities, gather and demonstrate their collective capacity through teamwork and the exchange of knowledge, skills and experiences.

According to [19], in other words, a team interaction style is a group of people who can trust each other, share information, communicate, and make joint decisions to complete a task. According to [20], successful communication intelligent over time and involvement are emphatically related with execution, but as it were for high-performing bunches. Furthermore, according to [21], it can allow impact into group execution as well as distinguished the positive and also negative behaviors for as portion of the gather interaction fashion. There are three bunches of the behaviors, such as execution desires and integration, authority, and cohesion.

Furthermore, it could contribute to the performance of the team on intellectual tasks, a set of negative behaviors, such as non-participation, and information retention. According to [22], activity group members' behaviors are seen as a rule centered on the short-term administration of brief execution cycles inside the limits, challenges, and dangers postured by the high-risk group setting. Moreover, according to [23], characterized by dominant styles have achieved different levels and modes of performance and processing results in intellectual decision-making tasks that need to share information. Particularly, arrangements that were delivered by useful bunches are predominant in quality to arrangements created by inactive bunches, and superior in acknowledgment than arrangements delivered by inactive or forceful bunches.

According to [24], although its appearance can be native such as unique and explicitly guided or planned within the team, it is a mental model of the team built during previous experience or training. For example, can be for a certain possible conditions, such as these occurrences.

According to [25], inspiration includes the demeanors and full of feeling stated that impact the degree of exertion that learners make to memorize amid a widespread. The effectiveness of team interactions between students and teachers will influence teaching and learning process. According to [26] considering the benefits of two educating

strategies, Understudy Group Accomplishment Division and Bunch Examination, and the characteristics of the understudies over, this endeavor to shed light on the adequacy of these two in instructing perusing comprehension to understudies with high and low inspiration amid a pandemic. According to [27], an circuitous affect on diminishing mortality by propelling, holding, and supporting experienced understudies and representatives is the adequacy of group intuitive. Successful group intelligently fashion or authority clearly influences generally comes about, such as the quality of the group interaction by building up the group execution.

According to [28], they should give more attention to team interactions during a pandemic. They should not just analyze the team interaction process, but pay more consideration to communication, contact, strife, believe, and learning within the group interaction prepare. In this manner, not as it were give consideration to the generation and the comes about of group intuitive, but also to the intuitive group that will deliver the issues about an amid widespread. According to [11], this includes a shared, correct understanding of the needs and circumstances of the task, dependent on accurate predictions of each other's actions and needs, as well as the coordination and investigation of each action. Voluntary coordination behaviors that can generate new knowledge about the selforganization and functioning of high-risk teams.

According to [29], during a pandemic helps action teams to perform well, it seems valuable to explore their coordination behaviors beyond explicitly initiated reflection periods by observing what these teams actually do while they are simultaneously engaged in task work, and examining how these behaviors may facilitate performance. According to [30], if virtual teams can increase team interaction and reduce social laziness, then teams that can choose to actually work can switch to virtual teams. That could save the company thousands of dollars in operating expenses.

## 6 Research Design

According to [31], the quantitative technique elucidates mysteries by gathering and representing numerical data that is then deconstructed using numerically-based procedures in particular statistics and perceptual manipulations for the purpose of portraying. It is utilized in a wide assortment of characteristic and social sciences, counting geology, psychology, biology, sociology and physics. Besides that, it is about calls for common-place investigate plans where the center of investigate is to portray, clarify and predict phenomena, depends on bigger sample sizes as compared to subjective inquire about plans.

According to [32], by utilizing specific techniques and strategies, quantitative method about to evaluates connections between diverse factors. In quantitative research, involving two factors, for example, the point of analyst is to study the connection between an independent variable and dependent variable.

## 7 Research Findings

### 7.1 Frequency of Respondents

This sub-topic discusses about the frequency of the respondents who participated in this study for pilot test. Table 1 shown that 76 (50.7%) of the respondents were male respondents while another 74 (49.3%) respondents were female respondents.

For the age category, Table 1 has shown that 31 (20.7%) respondents aged between 21 until 25 years. For age 26 until 30, there are 30 (20.0%) of the respondents that involved. 75 (50.0%) respondents aged between 31 until 35 years old. 7 (4.7%) respondents aged between 36 until 40 years old. 7 (4.7%) respondents aged more than 41 years old.

For the marital status category, it is shown that of the 150 respondents, 44 (29.3%) respondents were single. For married individuals, 104 (69.3%) respondents were involved. For others, there were only 2 (1.3%) respondents were involved.

For the education level category, 16 (10.7%) respondents were in Diploma level. For Bachelor Degree, 109 (72.7%) respondents that were involved. For Masters level, there were 24 (16.0%) respondents were involved while for PhD, they were only 1 (0.7%) respondent was involved.

For the monthly income category, it is shown that out of the 150 respondents, 22 (14.7%) of the respondents' income is less than RM2000.

For income between RM2001-RM3000, there were 12 (8.0%) respondents were involved. For income between RM3001-RM4000, there were 60 (40.0%) respondents were involved. For income between RM4001-RM5000, there were 36 (24.0%) respondents were involved while for income more than RM5000, 20 respondents (13.3%) of the group were involved.

### 7.2 Instruments Reliability

To examine the reliability of the instrument, this study used Cronbach's alpha values that can measure the internal consistency of the instruments used for the purpose of this study. This study involved 3 variables namely communication medium, team interaction style and pandemic covid-19. Table 2 shown that the communication medium variable show  $\alpha = .924$ . Next is related to the team interaction style variable, the alpha value of this variable shows  $\alpha = .836$ . The last variable is related to pandemic covid-19 variable. The alpha value of this variable was  $\alpha = .910$ . Overall, the value of the Cronbach's alpha is acceptable for purpose of this study.

### 7.3 Hypothesis Testing

Hypothesis 1: There is a relationship between communication medium and pandemic Covid-19. Hypothesis 1 are discussed on relationship between communication medium and pandemic Covid-19. ( $r = -.287$ ,  $p > 0.01$ ).

Table 3 shows that there is a relationship between communication medium and pandemic Covid-19. It has shown that communication medium effect of contribute towards pandemic Covid-19 as most of the employee use communication medium as their platform to communicate in daily life. Therefore, the hypotheses are failed to reject.

**Table 1.** Frequency of respondent

Demography Factors	n	%
Gender		
i) Male	76	50.7
ii) Female	74	49.3
Age		
i) 21-25 years old	31	20.7
ii) 26-30 years old	30	20.0
iii) 31-35 years old	75	50.0
iv) 36-40 years old	7	4.7
v) More than 41 years old	7	4.7
Marital Status		
i) Single	44	29.3
ii) Married	104	69.3
iii) Others	2	1.3
Level of Education		
i) Diploma	16	10.7
ii) Bachelor Degree	109	72.7
iii) Master	24	16.0
iv) PhD	1	0.7
Monthly Income		
i) Less than RM2000	22	14.7
ii) RM2001–RM3000	12	8.0
iii) RM3001–RM4000	60	40.0
iv) RM4001–RM5000	36	24.0
v) more than RM5000	20	13.3

**Table 2.** Cronbach's Alpha Analysis

Variable	Items	$\alpha$
1.Communication Medium	17	.92
2. Team Interaction Style	27	.84
3. Pandemic Covid-19	15	.91

**Table 3.** Relationship between communication medium and pandemic Covid-19

Communication Medium	Pandemic Covid-19
r	-.287**
n	150
p	.000

\*\* . Correlations is significant at the 0.01 level

**Table 4.** Relationship between team interaction style and pandemic Covid-19

Communication Medium	Pandemic Covid-19
r	-.155**
n	150
p	.000

Hypothesis 2: There is a relationship between team interaction style and pandemic – Covid-19.

Hypothesis 2 discussed the relationship between team interaction style and pandemic Covid-19. ( $r = -.155, p < 0.05$ ). Table 4 shown that there is no relationship between team interaction style and pandemic Covid-19. It shows that team interaction style is not affect or contributes towards pandemic Covid-19. Therefore, the hypotheses are rejected.

## 8 Discussions

Objective 1: To identify the relationship between communication medium and pandemic Covid-19.

The objective of this study is to identify the relationship between communication medium and pandemic Covid-19. The hypothesis evidently shows that there is a relationship between communication medium and pandemic Covid-19. This is because the employee uses communication medium such as social media or others platform in daily use to communicate with their teammates or colleagues.

Lastly, it is due to the fact that it is easier for them to get information from others and gather fast information. These findings are similar with past researcher such as [6, 10, 11, 15], and [16]. The past researchers found that there is relationship between communication medium and pandemic Covid-19.

Objective 2: To determine the relationship between team interaction style and pandemic Covid-19.

Next objective of this study is to determine the relationship between team interaction style and pandemic Covid-19. The hypothesis is that there is no relationship between team interaction style and pandemic Covid-19. It is because during the pandemic, most people are working at home. They will only do their own task or job. Based on team interaction, they rarely use due to the current situation. Other than that, employees mostly



use the same style of communication to interact with their team which is caused by the limitations that they had during a pandemic.

The findings found that there is no relationship between team interaction style and pandemic Covid-19. These findings are similar with past researcher such as [16, 21, 27, 28], and Hackman [12]. It means that this research has contributed to a new finding compared to past research are doing the same interest with this research.

## 9 Conclusion

While conducting this research, there are a lot of implications from this study. This is because, as the researcher noted, the findings clearly show that employees in the organizations are more likely to use communication platforms to interact and communicate among themselves during a pandemic Covid-19. Most organizations use various communication platforms to communicate with their colleagues. It is easier for the organizations to give fast information and tasks to their workers. Because of that, organizations need to make one of the communication medium platforms as main platform for their employees.

Furthermore, even if groups interact less regularly, they can adjust in a variety of ways. For objective and accurate appraisal of others' contributions to cooperation, computer mediated communication may be preferable to face-to-face contact. It is also discovered that it appears to be a fundamental decline in the human proclivity to promote relational or socioemotional communication. Extant studies also do not indicate that people have trouble interpreting emotional tone or other characteristics of personality that are communicated. In terms of knowledge, framing a remark emotionally might improve perceptions of authenticity and confidence in the firm. Based on these findings, organizations should consider the technique they use when developing communication messages. Although it may appear contradictory to proactively self-disclose a possible threat, it may be beneficial. Organizations should recognize the power of emotions in persuading individuals of a good goal.

Based on the perspective of knowledge body, these findings show that, communication is perceived as a significant factor during pandemic Covid-19. We are aware that, during pandemic, most of organization are closed down and it is difficult to communicate with staff. However, this research showed that, communication indicators are importance although faced with a new norm. It is proven that; communication elements are importance during pandemic Covid-19 situation.

Based on this research, recommendations for future research are that the researchers need to study or analyze a lot of this issue, especially for team interaction styles and pandemic COVID-19. This is because in this research, the second objective is not significant to this research. Other researchers can go deeper into this issue to make it significant for future research. Furthermore, this research can not only focus on employees in one organization, but also be sent to more organizations to make this research more significant and reliable.

Future researchers can expand the respondents' since in this research, the findings were only from Great Eastern Takaful Berhad, Kuala Lumpur. Maybe the next researchers can expand to include the other employees from the other organization. Lastly, the study can be carried out by conducting a qualitative method. This is due to

the fact that when using the qualitative method, researchers can gain a more in-depth understanding of the topic because this method typically uses face-to-face methods such as interviews to elicit an answer from the respondent rather than waiting for the respondent to completely fill out the questionnaire provided when using the quantitative method. Not only that, it can also help to get a more accurate and specific answer directly from them.

**Acknowledgements.** Thank you to all authors of this paper and KUPTM for given Internal Grant.

**Authors' Contributions.** All authors direct contributions on writing and reviewing the paper.

## References

1. V. P. Andhita, Irwansyah. (2020). Communication Patterns and Media Technology Role in Organization and Society During Pandemic. *The Journal of Society and Media*, 229.
2. D. M. Kaushik, N. Guleria (2020). The Impact of Pandemic COVID -19 in Workplace. *European Journal of Business and Management*, 10
3. M. Shurden (2017). Student Perceptions and Opinions Toward E-Learning in The College Environment.
4. A. Winter (2020). Problems working in semi and full-time virtual teams: Comparison of virtual team problems pre and post-Covid 19 epidemic. University of Twente, 2.
5. K. Giffin, B. R. Patton (1976). *Basic Reading in Interpersonal Communication*. New York: Harper & Row.
6. W. M. Reisman, (1981). *A Process of Communication*. The Harold D. Laswell Memorial, 8
7. T. A. Awoniyi, (1982). *The Teaching of African Languages*. London: Hodder and Stoughton.
8. J. Habermas, (1988). Measuring normative beliefs and shared behavioral expectations in organizations: The reliability and validity of the Organizational Culture Inventory. *Psychological Reports*, 72(3, Pt 2), 1299–1330.
9. M. N. Okenimkpe (2010). *Communication for Business*. National Open University of Nigeria, 34.
10. J. C. Mendelsohn, R. Robins, J. Canny (2001). Effects of Communication Medium on Interpersonal Perceptions: Don't's Hang up on the Telephone yet. *The ResearchGate*, 31.
11. G. Fernando, S. Hughes, (2019). Team approaches in Palliative Care – A Review of the literature. *International Journal of Palliative Nursing*
12. L. O. Daniel, (2013). Communication as Sociocultural Meaning exchange: The Example of Richard Wright's *Black Boy*. *International Journal of Applied Linguistics & English Literature*.
13. E. W. Pranata, M. C. Latif, F. Fanani, (2019). Symbolic Interaction of The Deaf Students in Public School. *Journal The Messenger*, 21
14. J. R. Hackman (2002). *Leading Teams: Setting the Stage for Great Performances - The Five keys to Successful teams*. *Personnel Management*
15. B. E. Lyon. (2020). *The Effect of Communication Medium on Mental Health Outcomes*. The Faculty of the Communication Studies Department California Polytechnic State University, 15.
16. V. Bielefeld, (2021). *How to Steal Thunder: The Effects of Crisis Communication Timing, Crisis Communication Framing and Communication Medium on Consumer's Trust, Perceived Sincerity, Anger, Purchase Intention and Perceived Crisis Severity*. Master Thesis.

17. F. Tong, Y.-C. Lin (2021). The Temporal and Spatial Bias of Information Flow on New Media Platforms during Covid-19 Pandemic. *Turkish Journal of Computer and Mathematics Education*, 5.
18. J. R. Hackman, C. G. Morris (1975). Group tasks, group interaction process and group performance effectiveness: A review and proposed integration. In: D. L. Gladstein, 1984. *Groups in context: A model of task group effectiveness*. *Administrative Science Quarterly* 29, pp. 499–517.
19. K. B. White, (1984). *MIS Project Teams: An Investigation of Cognitive Style Implications*. *Project Teams: Cognitive Style*, 12.
20. P. Bottger, (1984). *Management of organizational behavior: utilizing human resources*. 6th Ed. Prentice-Hall, New Jersey
21. W. E. Watson, L. K. Michaelsen (1988). Group interaction behaviors that affect group performance on an intellectual task. *Group & Organization Studies*, 13(4), 495–516.
22. E. B. Hamilton, M. Jones, C. Hammen, (1993). *Maternal Interaction Style in Affective Disordered, Physically ill and Normal Women*. Faculty Publications of Psychology.
23. R. A. Cooke, J. L. Szumal, (1994). The Impact of Group Interaction Styles on Problem-Solving Effectiveness. *The Journal of Applied Behavioral Science*, 30, 415-437.
24. M. Kolbe, G. Grote, M. J. Waller, (2014). *Monitoring and Talking to the Room: Autochthonous Coordination Patterns in Team Interaction and Performance*. American Psychological Association, 24
25. N. Chotimah, D. Rukmini. (2017). The Effectiveness of Students Team Achievement Division (STAD) and Group Investigation (GI) Technique and To Teach Reading Comprehension to Students with High and Low Motivation. *English Education*.
26. S. Sachdeva (2017). Study of Examine the Influence of Leadership Style on Effectiveness of Teams in Organizations. *Journal of Educational and Management*, 4.
27. D. F. Sfantou, A. Laliotis, A. E. Patelarou, D. S. Pistolla, M. Matalliotakis & E. Patelarou, (2017). Importance of Leadership Style Towards Quality of Care Measures in Healthcare Settings: A Systematic Review. *Journal of Healthcare*, 23.
28. Y. Wang (2018). An Overview on The Team Interaction Process. *open Journal of Social Sciences*, 15.
29. D. A. Deshpande, P. Salunke, T. Joshi, (2020). Work Life Balance in Phase of Pandemic. *An International Bilingual Peer Reviewed Referred Research Journal*.
30. S. H. Shah, (2017). Psychological Impact of Isolation from Leader in Virtual Teams on Team Interaction. *Terra Science and Education*, 51
31. D. Muijs (2010). *Doing Quantitative Research in Education with SPSS*. Sage Publication, 23.
32. K. Khalid, H. Hilman, D. Kumar (2012). Get Along with Quantitative Research Process. *International Journal of Research in Management*, 2.

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