



TECHNOLOGY AND METACOGNITIVE AWARENESS IN ENGLISH COMMUNICATION AT THE WORKPLACE

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ABSTRACT

This study investigates the role of metacognitive awareness in language competence among professionals in workplace communication. Metacognition, the ability to monitor and regulate one's cognitive processes, is increasingly recognized as a critical factor in effective language use, especially in complex professional environments. This research examines how metacognitive strategies—such as planning, monitoring, and evaluating—affect language performance in various professional settings, including corporate meetings, negotiations, and client interactions. The findings reveal that self-regulation and metacognitive strategies play a significant role in enhancing employees' ability to communicate effectively in English, particularly in global business contexts. Participants demonstrated a strong metacognitive awareness, with a mean score of 4.13 for their ability to adjust communication strategies in professional interactions. Similarly, the reflection on task performance and goal-setting yielded mean scores of 4.00 and 4.07, respectively, indicating that employees actively engage in self-regulatory behaviours to improve their English communication skills. Besides, individuals' metacognitive also maintaining balance and self-regulated in utilizing technology.

Keyword: Metacognitive Awareness, Professional Language Competence, Workplace Communication, Metacognitive Strategy

INTRODUCTION

(Abdelrahman, 2020) claimed that awareness on metacognitive was identified as a significant predictor of academic success. People with higher metacognitive awareness demonstrate better academic performance, suggesting that awareness of one's cognitive processes aids in effective learning. Professional language competence is in the context of using effective use of grammar, vocabulary and pronunciation as means of communication. Moreover, common abbreviations in structured emails, reports, proposals and other documents in professional setting are often included. Another challenges is also shown that the need of language skills are required in the business and industrial sectors in Indonesia (Sri Nur Yuliyawati & Hazma, 2022).

In fact, the language competencies for the four skills; speaking, reading, listening and writing are still far from what is expected to compete globally in business and other industry sectors. EF EPI (English First, English Proficiency Index) (EF, 2023) placed Indonesia rank 79 in Asia in which categorized as low while top three country Singapore, Philippines and Malaysia are very high. (Rajprasit et al., 2022) also discovered workers who worked in

multinational companies encounter challenges in using English for workplace and business activities communication. This resulted low workers performances in press briefing, business negotiation and other foreign collaboration and cooperation. As a result, lack of English communication competence led to ineffectiveness task and project accomplishment of a company. This has become a greatest challenges to the academics institution to accommodate this issue of incompetence of English communication in professional settings.

Besides, mass development of technology changes our life behaviour. (Razmak & Bélanger, 2017) stated in his study that the efficiency on the use of technology helps maintain the flow of daily life while addressing health needs efficiently included time efficiency. Many studies also discussed that the advancements of the use of technology help learner to deal with real-life problem (Cevikbas et al., 2023). Moreover, the presence of technology advancement such as artificial intelligence (Ai) effectively help and assist user to integrate complex problem with technology based strategic tasks and help (Mikalef et al., 2023). Considering its benefit to daily needs, technology such as social media brought another perspectives to this research interest towards business communication activities. (Figueroa-Quñones et al., 2024) found out that social media as mentioned in that study (Facebook) made such a destruction to the human health that led to problem and behaviour. Addiction to social media also resulted low academic performance. A recent investigator has been done so far by (Vuchkovski et al., 2023) who concerned a digital transformation in the workplace communication. One major issue in business communication is that face to face communication facilitates efficient information transfer while minimizing the risk of leakage.

More recently. modern society tend to fulfil daily need activities; transactions, communication, and other social activities using smartphone as a basic need device. This resulted strong attachment between human and technology in which (Shang et al., 2024) discovered a significant positive correlation on the overused of smartphone toward anxiety and depression. Much of the current literature also revealed that youth are more vulnerable to the technology addiction and (Frydenlund et al., 2023) mentioned low mental health and well-being toward smartphone addiction to youth. Collectively, these studies on the technology addiction impact their adulthood behaviour. In their analysis of adverse childhood experience (ACE), (Zak-Hunter et al., 2023) identifies significant impacts on both physical and mental health. However, (Wang et al., 2024) found out that self-directed learning and understanding our self-learning style is a way out to overcome distractor to online activities (e.g., Whatsapp, Instagram, Facebook) while using technology. Self-learning and self-management are part of autonomous learning behaviour in which a person can control their cognitive and manage himself toward activities. These two elements; self-learning and self-management are commonly found in human metacognition. A study of (Prakash et al., 2019) stated that adult learning style tend to be autonomous, self-directed, and often resistant to adopting new concept (andragogy). Therefore, adult learning primary focus on the practical and immediate application of knowledge.

In relation to metacognitive concept of learning, there have been a number of longitudinal studies involving metacognition, one of the them is (Tajalli & Satari, 2013) that self-monitoring gave significant impact toward learning. With regard to adult learning behaviour. Recent evidence from the studies above identified that low English skill communication could significantly decrease professional performances in workplace and company profit due to lack of competitiveness. Inability of an employee affects the progress of company in competing with other companies. This can result in a decrease company



performance among other companies. Despite its importance of mastering English as international language communication, a demand for face to face communication in business activities has increased among employees following the COVID-10 pandemic. Certain skills in business communication environment required employees to be able to have good communication skills even in difficult company situation (Mberia, H., 2011). Therefore, successful business communication built company relationship to customer which brought company success (Afolabi et al., 2021). Moreover, effective communicator of a manager in a company has a vital role to company's success ("Benefits of Business Communication Skills and Application," 2023). Research conducted but (Alshare et al., 2011) significantly emphasized communication skill for professional to master, such as proofreading, listening, facilitating meeting and interpersonal skill.

This technology addiction such as overuse to smartphone especially to internet cause problems to human life. Moreover, Internet addiction (IA) led to uncontrolled behaviour due to disturbing daily lives. This research also aimed to answer a study conducted by (León Méndez et al., 2024) and see the relationship between addiction and cognitive control.

Technology and Metacognitive Awareness

Much of current literature on education and technology and one of them is (Marino et al., 2023) that education landscape in the future integrated artificial intelligence (AI). (Mod Istyak Ali, 2020) found that technology can be a part of human life. it concluded that technology makes life easier. Technology has brought and changed how human live, communicate and socialize. Our lives are changing in times from generation to generation. The way we live from traditional to modern, communicate to other people and socialize to other customs and traditions are affected by the existence of technology. Technology interestingly changes our way life. Furthermore, technology innovations has also made a lot changes to education policy, economy transformation and politics. (Wijayanto et al., 2023) claimed that technology advancements such as metaverse could make educational practices more engaging, interactive, and effective. Computational era whereas digitalization forced people to be more adaptive to changes, move more quickly and act fastly to the rapid changes (Zhang & Chen, 2024). In term of technology, (Haleem et al., 2022) found that technological improvements have transformed education into more accessible, engaging and effective process. Technology has become important element to a successful learning goal in this modern era. Its role of technology has become a mirror of how technology fulfil the need of modern education. Google classroom as one of the learning management system. It is well used and its ease interface, teacher and student have their digital classroom managed well (Al-Marroof & Al-Emran, 2018). Besides gamification promoted modern learning experiences. The integrations of knowledge and information transfer in a game application does transformed the traditional learning into a more engaging and interactive learning experience. An investigation had done by (Palaniappan & Noor, 2022) that a positive influence shown on students' learning performance in gamifying the learning. By drawing a concept of technology in education, (Shum et al., 2023) highlighted an adaptive learning captured learners' attention and boosts their motivation. Thus learning transformation also occurred to teaching practices in the classroom. The shifting of traditional to modern teaching methods is seen as a result of technology advancements. Blended learning is often promoted as a learning combination that associated mobile applications through in-class activities. It was also further discussed in (Kumar et al., 2021) how blended learning is

found to be effective and supportive in online learning though the writer still identified as a difficult to some of the learners to use application in learning.

In the recent years, technology has demonstrated its advancements towards its adaptability to customize education contents and materials. (Simon, 2024) claimed that technology with contextual features in it brought meaningful learning experience and engagement to students. The technology engagement in learning brought interest, enjoyment and emotional feeling to students. Emotional feeling that is associated to the learner behaviour is connected by the involvement of technology in learning. Artificial intelligence is now becoming more closely to people and being a most popular technology used by many people in education, healthcare, retail and E-commerce and other public and private sector (Jan et al., 2023). However, the findings of the current study resulted different perspective and view towards technology. In contrast to earlier findings, (Lin et al., 2023) found that excessive technology such as smartphone usage addressing behavioural addictions. It included compulsive checking of notification, overreliance on social media or gaming apps, poses risks to mental health, productivity and social relationship. This technology dependence and its rapid development made no limitation to its users. Technology might even be harmful with inappropriate user as mentioned in (León Méndez et al., 2024). As a human being, the ability to be aware of things and understanding their own thinking process is referred to as metacognitive awareness. In addition, that ability to monitor and evaluate their own thinking is even in the early age (John H Flavell, 1979). These set of skills such as remembering, understanding complex terms, problem solving are even monitored and evaluated in their mental activities (Zimmerman, 2000). The ability to plan, monitor control and evaluate is also referred to regulation of cognition in metacognition control (Bürgler et al., 2022). Self-awareness is often referred to a concept of good self-management that led to positivity on human behaviour. When people understand themselves well, they tend to be more confident, creative, and effective in making decisions. It also helps in building better relationships and communicating clearly. Self-aware individuals are more ethical, perform better at work, and are more likely to be promoted. As leaders, they create happier teams and lead more successful companies (Karimi & Rada, 2019). The researcher assumed that self-awareness on human metacognitive skills will lead individuals to gain more positive impact to self-management more confident, innovative, and able to make better decisions. The researcher believed that every individuals has their metacognitive ability and high metacognitive ability were way better at divergent thinking (Jiang et al., 2023). This study tried to bring how far technology impact to human metacognitive skills

Professional English Language Competence

Current global and multinational company demand its employee to be qualified to communicate understand intercultural setting. Professional communicator which is English competence refers to the specific language skills and strategies needed to communicate effectively and appropriately in professional setting and environments. This competence requires more than just general proficiency in English; it involves a blend of linguistic, pragmatic, and cultural skills that enable professionals to meet the demands of workplace interactions. English as a foreign language has its importance role in effective communication within industries in the globalization world (Wijayanto et al., 2023). It also found that a vital need of English language skills in order to effective performance in industry (Ranasuriya & Herath, 2020). An argument is made that mastering English language is based on the four skills;



listening, speaking, writing and reading. (Cunha et al., 2023) drew his attention that English mastery in professional setting is close to native. It involved negotiating, making decisions, and solving problems. Negotiation is a multifaceted and dynamic process of a communication. It involved active listening, empathy, problem solving, critical thinking, decision-making abilities through a complex topic discussions (Ali, 2023). In business and professional setting, foreign language such as English is an inseparable part within learner's intercultural communication practically and theoretically (Li & Dong, 2021). It can be highlighted that a foreign language mastery of a professionals has a significant impact toward multinational company targets and goals. A rapid economic globalization made a significant chances and opportunities frequencies to professionals to interact within intercultural communication. In this point, the researcher found that professional English language competence is communication is beyond mastering general English skills; listening, speaking, reading, and writing. This study aimed to discover the role of metacognitive awareness in professional setting and business activities which focuses on effective English communication. The researcher seek to address the following questions: (1) How does metacognitive awareness influence employees' ability to adapt their English communication strategies in multicultural business setting? (2) What is the impact of self-regulation strategies on managing technology use in enhancing productivity and reducing communication barriers in international business? (3) To what extent does metacognitive reflection on task performance contribute to employees' confidence and effectiveness in conducting business communication in English?

METHOD

This study employs a qualitative methods approach to examine the role of metacognitive awareness in enhancing professional English language competence within workplace communication. A qualitative approach is adapted from (Creswell, 2014) using grounded theory to develop theory from data collected during the research process. A collected data would be coded and categorized to build a theory and phenomenon. A questionnaire is arranged using likert scale to analyse and explore participant attitude or perceptions regarding to metacognitive and workplace communication abilities. This research method and technique involved numerical responses. Respondents' statistical data result would be analysed by the researcher to see the pattern and trends based on the scale responses.

A cluster sampling employed in which the researcher divide a population into clusters (group). The researcher did not select the respondents but grouping and clustering the sample into gender, age, company, location, background of education and position in the company. A cluster sampling is applied to divide the population into smaller subgroups (Robb, 1963) . The research targets are the employees from multinational companies in different professions and fields; finance, marketing, business owner, director, banking department, sales, accountant, supervisor and other units and departments in business unit. The research participants are approximately 15 employees from national and multinational company. The researcher respondents' demography data to view accurate responses' background.

Participants

Table 1

Sample distribution classified by categories:

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Accounting and tax	1	6.7	6.7	6.7
Admin	1	6.7	6.7	13.3
Administrasi Dokumen	1	6.7	6.7	20.0
Direktur utama	1	6.7	6.7	26.7
Finance & Accounting	1	6.7	6.7	33.3
Manager	1	6.7	6.7	40.0
Marketing	2	13.3	13.3	53.3
Sales	1	6.7	6.7	60.0
Sekretaris	1	6.7	6.7	66.7
Staff	3	20.0	20.0	86.7
Staff keuangan	1	6.7	6.7	93.3
Supervisor	1	6.7	6.7	100.0
Total	15	100.0	100.0	

Besides, data respondents also categories from age, gender, company profile, length of work.

Table 2

Data Demography

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid >10 tahun	3	20.0	20.0	20.0
1 - 5 tahun	3	20.0	20.0	40.0
5 - 10 tahun	9	60.0	60.0	100.0
Total	15	100.0	100.0	

Instruments

Metacognition as it described from (Flavell, 1979a) is viewed as the ability to understand about states of self-cognition and regulation control. There are there main concerns on metacognition; planning, monitoring and evaluating. This instrument used 28 items. The researcher implemented a Likert scale (0=Never; 5=Always) developed by (Beglar & Nemoto, 2014). The questionnaire is grouped into I. Metacognitive regulation 8 items. II. English abilities in workplace communication 12 items. III. Technology use 8 items.

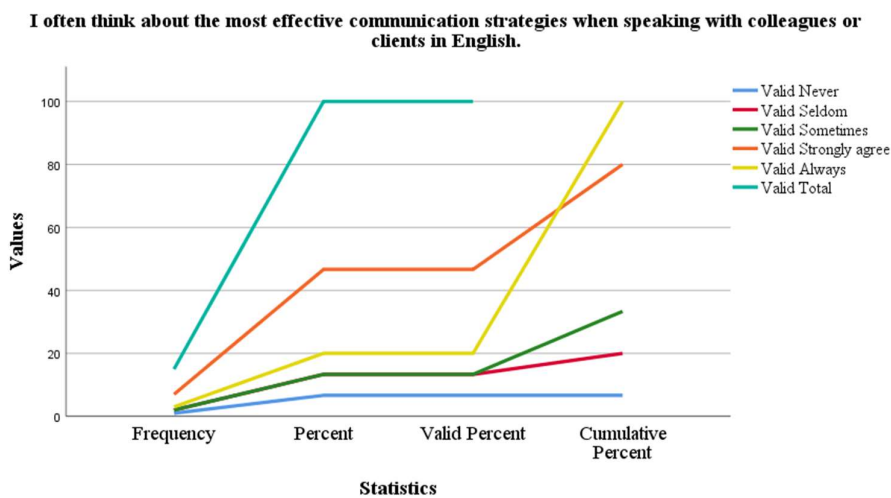


RESULTS AND DISCUSSION

The assessment on metacognition showed from the table of survey conducted on 28 items related to metacognitive awareness, English use in workplace communication, and technology use. A detailed data interpretation is shown below. Mean scores, standard deviation, and minimum/maximum values are also presented from the table.

Category	Mean Range	Key Insight
<i>Metacognitive Awareness</i>	3.47 - 4.13	Moderate to high awareness, with room for improvement in reflection
<i>English Use in Workplace</i>	2.87 - 4.00	Strong belief in English’s business value, but challenges in adaptability
<i>Technology Use and Productivity</i>	2.67 - 4.13	Some signs of technology addiction, but good self-evaluation skills

Metacognitive awareness range from 3.47 to 4.13, indicating that the respondents have moderate to high levels of self-awareness regarding their learning strategies, problem-solving, and goal-setting at work. With the highest scores 4.13 for the item “*I know which strategies are most effective for completing a particular task*”. It indicated that individuals/respondents agreed metacognitive abilities in which metacognitive knowledge and metacognitive regulation enabled them to be more self-regulated, self-monitor and possibly manage a strategic steps to ensure the goals and targets are accomplished. In addition, the ability of metacognitive strategy is also identified as effective communication at workplace communication strategy whereas mean scores reached 3.93 and median 4.00 as illustrated from a graph below:



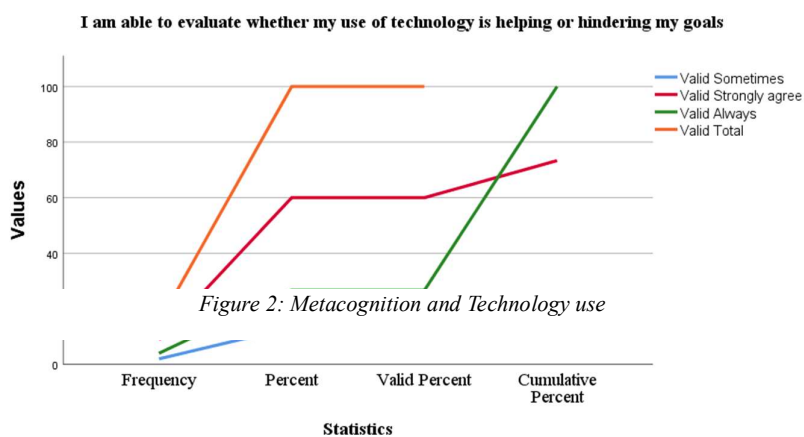
Graph 1: Metacognition and Workplace communication

From the line graph shown above, a valid percent within a total of 15 number of respondents reached highest point on “*Strongly Agree*” with managing and thinking most effective communication strategies when speaking with colleagues or clients in English. In this case, individual’s metacognitive strategy is identified while preparing making such a business communication that aimed to target successful business goals and objectives with client and

customer. The ability to plan, monitor and evaluate are set of skills that belong to metacognitive experience (Livingston, 1997).

Another variable mentioned on this study is a technology use such as smartphone and social media. As a result, a better individual' metacognition performance affect to better self-management. By the mean score 4.13 for the item *"I am able to evaluate whether my use of technology is helping or hindering my goals"*. It indicated that respondents are mostly aware of how technology properly use. Besides, the lowest scores was found from the survey *"I find it difficult to stop using technological devices"* is 2.67 and 3.20 for *"Using technology often takes over time that I should be using for work"*.

Thus can be concluded that technology in self-regulation awareness enabled individual to mitigate the negative effects on overuse of technology and addiction as illustrated from graph below.



The ability to plan and monitor is at the level of highly self-consciousness thinking (Ellen, 2018). Every decisions and actions made by individual is produced through a metacognitive concept. A concept of thinking about thinking from (Flavell, 1979b) is considered to lead every individuals to process of self-consciousness. Lastly, this study found that metacognition control by individual from different professions affected on how they communicate. As a result, effective individual's communication reached better with individual's metacognitive knowledge and experience. In the same way, self-regulation within a metacognitive knowledge successfully mitigate the negative effects on technology addiction.

CONCLUSION

This study resulted the relationship between metacognitive awareness, English communication in business, and the impact of technology use toward self-control. The research concluded a higher level of metacognitive awareness positively influence in successful business communication settings. A data shown highly self-awareness from respondents tend to perform English better in business setting as 3.87 to 4.20 for the mean scores. The following conclusions can be drawn by a strong indication and relation in goal setting, self-reflection, and problem solving whereas metacognition often use in such a planning, monitoring and evaluating process of a business communication. A statistical data also showed a result on how metacognition performed well on individual's management. Moreover, although excessive technology use, the respondents did not affect individual's productivity and focus during a working hour. Therefore, Metacognitive strategies directed individuals to be able to manage their technology use, such as setting up time limit while using technology, monitoring



technology and social media spent time. Thus self-regulated are in order to avoid addiction and increase the ability of self-evaluation. The findings also highlighted the critical role of metacognitive awareness in shaping individuals' metacognitive knowledge and experiences when utilizing English for international business communication. Exploring more about metacognition and technology, future researcher is expected to provide practical insights for hybrid employee or worker to see metacognition control.

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