

CHAPTER IV

CONCLUSION AND SUGGESTIONS

4.1 Conclusion

This study aims to analyze the types and functions of silence in communication between pilots and Air Traffic Controllers (ATC) using a Conversation Analysis (CA) approach. This research was conducted to understand how silence occurs in professional interactions that require high precision, such as aviation communications. The research data were obtained from recordings of radio conversations between pilots and ATC at Minangkabau International Airport, which were then transcribed using the Jefferson transcription system to accurately capture conversational details, particularly those related to the occurrence of silence.

Based on the analysis of 79 conversation recordings, this study identified two main types of silence: pauses and gaps. Of the 399 silences recorded, 135 were categorized as pauses, while 264 were categorized as gaps. These findings indicate that gaps are the most dominant type of silence in communication between pilots and ATC. The dominance of gaps indicates that communication between pilots and ATC relies heavily on a turn-taking system, where each instruction from one speaker is followed by a response from the other speaker. This suggests that silence between turns is a natural part of the structured communication process.

In addition to the types of silence, this study also identified five main functions of silence in communication between pilots and ATC: response processing, utterance planning, ensuring accuracy, response waiting, and hesitation. Response processing was the most dominant function, with 238 instances, indicating that most silences are

used by the speaker to comprehend and process information before responding. The utterance planning function was found in 88 instances, indicating that the speaker needs time to plan the next utterance when conveying complex information. The ensuring accuracy function was found in 37 instances, indicating that silence is used to ensure the accuracy of conveying important information, such as runway numbers, squawk codes, and flight levels. The response waiting function was found in 26 instances, indicating a pause while the speaker waits for a response from the other speaker, especially at the beginning of the conversation. Meanwhile, the hesitation function was found in 10 instances, indicating a moment of hesitation before the speaker continues speaking.

The findings of this study indicate that silence in communication between pilots and ATC is not a communication interruption, but rather a vital part of conversational organization that supports smooth interaction. Within the framework of Conversation Analysis, silence is understood as an interactional resource used by speakers to manage turn-taking, plan their utterances, and ensure proper understanding of the message. Thus, silence plays a significant role in maintaining the accuracy and effectiveness of communication in high-stakes professional contexts.

The predominance of gaps indicates that silence in ATC-pilot communication is a natural part of radio communication mechanisms, not a sign of communication breakdown. Gaps arise because pilots and ATC must wait their turn to speak according to radio communication procedures. Meanwhile, the predominance of the waiting-for-response function indicates that silence plays a crucial role in giving the other person time to receive, process, and respond appropriately to instructions. Thus, silence contributes to maintaining orderly communication, avoiding overlapping

transmissions, increasing the efficiency of information exchange, and ultimately supporting flight safety.

Based on the research results, gaps are the most dominant type of silence, while response processing is the most frequently found function of silence in communication between pilots and Air Traffic Controllers (ATC). These findings indicate that silence in aviation communication is not just a pause, but plays a crucial role in providing time for the speaker to process information before providing an appropriate response. This reflects that pilot-ATC communication prioritizes precision and accuracy in delivering and receiving instructions, so the use of silence, especially gaps, contributes to reducing the potential for communication errors and supporting flight operational safety.

Theoretically, this research contributes to the development of Conversation Analysis studies, particularly in understanding the role of silence in professional communication. It also expands the application of Conversation Analysis to the context of aviation communication, a field that has been relatively limited in previous research. Practically, the results of this study are expected to raise awareness of the importance of silence management in communication between pilots and ATC, thereby supporting communication effectiveness and maintaining flight safety.

4.2 Suggestions

This study has several limitations. First, for future researchers, it is recommended to conduct more in-depth research on silence in aviation communication using broader and more diverse data. Future research could expand the data set or use data from different airports to obtain a more comprehensive picture of silence patterns in communication between pilots and ATC. Furthermore, future research could also

examine other conversational phenomena in aviation communication, such as repair, overlap, or turn-taking strategies, to provide a more comprehensive understanding of conversational organization in the aviation context.

Second, for aviation communication practitioners, particularly pilots and Air Traffic Controllers (ATC), the results of this study are expected to raise awareness of the importance of using silence appropriately in communication. Silence, whether in the form of pauses or gaps, can assist speakers in understanding information, planning their speech, and ensuring the accuracy of message delivery. Therefore, understanding the function of silence is expected to support communication effectiveness and minimize the potential for errors in aviation communication.

Third, for academics, this research is expected to serve as an additional reference in Conversation Analysis studies, particularly those related to the use of silence in professional communication. It is also hoped that this research will encourage further research examining communication phenomena in other high-stakes professional contexts, such as medical or emergency communication.

