UNPACKING THE IRF PATTERN: A DISCOURSE ANALYSIS OF CLASSROOM INTERACTION

M. Rijal Ahlun Naja[1*], Ayu Fatmawati[2], Sri Wulandari[3]
[1]rizalahlunnaja@gmail.com, [2]ayu@uniska-kediri.ac.ic, [3]sriwulandari@uniska-kediri.ac.id

UNIVERSITAS ISLAM KEDIRI

ABSTRACT

This research aimed to examine the Initiation–Response–Feedback (IRF) interaction pattern in a high school English classroom to determine the most effective strategies for enhancing student engagement during class and improving interactions between teachers and students. This study employed a qualitative descriptive method using classroom observation and audio recordings to examine IRF patterns. Discourse analysis was used to identify and classify each stage of the IRF structure. To obtain data, the researcher conducted classroom observations in one of the SMKN in Kediri City involving an English teacher and 35 students, this study used audio recordings to analyze discourse patterns during the lesson. Based on the results of the analysis, the student response stage is the most dominant stage with 41.38% followed by teacher initiation 34.48% and feedback 24.14%. The analysis indicates that while students actively participate, their responses are often limited to repetition rather than reflecting true comprehension. This highlights the crucial role of the teacher in facilitating meaningful classroom discourse and also the importance of students preparing themselves before receiving class material.

Keywords: Classroom Interaction, IRF Pattern, Discourse Analysis, EFL

A. INTRODUCTION

In this era, English has become an international language used by people around the world to communicate with each other (Atmojo et al., 2020). This also applies to classroom interactions, which are very important in the learning process. Classroom interaction usually consists of dialogues between teachers and students, with the teacher starting the interaction by posing a question to receive a response from a student Sinclair and Brazil (1982). Consequently, the educator possesses significant influence and dominance over the learners. This results in the teacher asking questions significantly more often than the students. Hence, grasping the framework of dialogues between teachers and students in the classroom is crucial for successful communication. It is often noticed that the teacher leads the conversation openings while the students react to those openings Nunan (1999). In the IRF model, it is evident that the teacher predominantly manages turn-taking in the classroom indicating dominance and authority in interactions. The IRF provides a thorough structure

for examining classroom interactions through a systematic arrangement of units. This pattern represents initiation-response-feedback, a discussion style between teachers and students. Instructor prompts, student reacts, instructor gives feedback (Tabios, 2025). The description of three patterns can be investigated through the subsequent explanation.

The first aspect is initiation (I), a teacher-student engagement process in which the teacher initiates the interaction by asking a question (Hashmi, 2025). In this interaction, as stated by Dayag (2008), initiation occurs when the teacher asks a question or steps to encourage student interaction in the classroom, namely the teacher's effort to motivate students to send messages to themselves or get involved. As noted by Harmer (2009), this is the phase where educators need to ensure students are engaged, involved, and ready. This method is considered important for developing an interesting English class because it provides encouragement for students to be consistently involved (SaThierbach et al., 2015). The second is response (R), which refers to the actions taken by students after the initiation created by the teacher (Nasution, 2022). (Dayag, 2008) indicates that the response serves as a representation of the teacher who started the response movement triggered by the actions of the participant. This indicates that students engage and react to prompts from the teacher. The last element is feedback (F), as the concluding exchange in a turn is intended to offer feedback on responses from students. As noted by (Dayag, 2008), feedback finalizes the process since it offers completion on commencement and reactions. This shows that the student succeeded in getting the correct answer or assessing the answer.

The IRF structure starts with a question posed by the teacher, then comes the replies from the students. and comments from the instructor. It is thought that students will gain from this connection. regarding their engagements with the instructor. Educators can assist students in navigating the interpretation of meaning with them, and they ought to achieve this by seeking clarification, performing confirmation checks, and carrying out understanding assessments (Mathieu et al., 2021). Negotiated understanding aids They assert that learning is essential, this type of understanding can enhance the abilities of learners. Thus, classroom interactions play a vital role in the learning process to create a classroom atmosphere that supports students in implementing communication between teachers and students, especially for 10th grade students who are still in the transition phase from junior high school to high school. This makes classroom interaction very important to build the confidence of students who are still adapting to a new environment.

However, a common problem for EFL teachers is dealing with passive classes where students are unresponsive and avoid interaction with the teacher. This is problematic because it deviates from the National Education System Law, which emphasizes the importance of student-centered education, encouraging activeness and independence in learning (Sisdiknas: 2023). This passive attitude of students makes the teacher act more dominantly during the learning process (Atmojo et al., 2020). This means that teacher dominance in classroom interactions can discourage students from participating and speaking more in the target language (Kurniawati & Fitriati, 2017). Excessive teacher talk and control over classroom interactions can create an imbalance that significantly discourages students from actively participating and, crucially, from speaking more extensively in the target language. This often leads to a passive learning environment where students become reluctant to initiate conversations or express themselves freely. Therefore, the subject of classroom

interaction has emerged as a captivating topic in discourse research as well as in language education.

Classroom interaction, as defined by Hall (2011), refers to the analysis of interactions that occur among individuals in a classroom setting when language plays a role (Atmojo et al., 2020). Earlier studies exhibit varying outcomes concerning the analysis of classroom interactions, the initial finding indicates that students engage actively during the English courses such as "Initiation-Response-Feedback (IRF) Framework of Sinclair and Coulthard Model in English Classroom Interaction" was released in 2024 by (Uswatun Hasanah et al. al., 2024). The examination of classroom interactions through the IRF model emphasizes the crucial function of communication between teachers and students in the educational process. The research involving an English instructor and 23 sixth graders demonstrated that the teacher's initiation by asking questions, students were effectively engaged.

The subsequent study, "Examination of Classroom Engagement in EFL Speaking Class Utilizing "IRF" was released in 2017 by Rustandi and Mubarok. This research investigates the IRF Reflection employing the Initiation-Response-Feedback model in speaking classes to determine the most frequent I, R, and F sequences. Teacher initiate, student responses, and teacher feedback are referred to as IRF. The findings of this research suggest that teacher initiation occurs when the teacher poses questions to stimulate answers and the teacher chooses who will speak next, demonstrates the essence of teacher-student engagement in speaking classes. Based on various forms of IRF patterns, learners replies primarily happen during classroom activities. The lesson content and the teacher's methods to involve students will influence whether student responses are more predominant or otherwise. Student involvement will rise if the topic is fairly straightforward. This research focuses on examining the implementation of the IRF model in 10th grade classrooms to uncover effective strategies that can enhance student-led communication and overall classroom engagement (Dalia,2024).

Furthermore, "Classroom Discourse Analysis" released in 2022 by Mitiku Teshome Abeti (Rymes, 2015) exhibited varying outcomes compared to the previous studies. Typically, the analysis of this classroom discourse follows the Sinclair and Coulthard (1975) framework. This discourse analysis leads to the conclusion that a teaching approach where the instructor dominates the conversation and students expect everything from that teacher fails to influence students' learning of English as a foreign language. However, previous studies have not specifically examined IRF patterns in the context of vocational classes such as culinary majors in Indonesia, particularly at SMKN 3 Kediri, which may have different interaction dynamics. Therefore, this study aimed to examine the Initiation–Response–Feedback (IRF) interaction pattern in a high school English classroom to determine the most effective strategies for enhancing student engagement during class and improving interactions between teachers and students.

B. METHOD

This study employed a qualitative case study design to investigate teacher talk in a senior high school English classroom, using the Initiation–Response–Feedback (IRF) model developed by Sinclair and Coulthard (1975). A qualitative study is suitable for exploring complex classroom interactions within a natural setting, as it enables researchers to provide in depth descriptions (Sugiyono, 2018). Furthermore, Creswell (2012) posits that the researcher focuses on the meaning, understanding, and processes derived from words or

images in qualitative research. Additionally, qualitative research often refers to a research approach that presents data in a descriptive manner including speech, written documents, or human actions (Dehalwar et al., 2024). By means of this design, the researcher will gather, examine, and interpret different types of data.

The participants in this study include one English teacher and 35 students from class X Kuliner 2 one of SMKN in Kediri. This class was purposefully selected because Researchers had the opportunity to observe during PLP 1. The teacher was selected due to recommendation from the headmaster. Data were collected through audio recordings of one classroom sessions approximately 45 minutes in length. Informed consent was obtained from all participants prior to data collection ensuring anonymity and confidentiality (Lau et al., 2024). All recordings were transcribed verbatim. Data analysis involved a detailed coding scheme based on the IRF model by Sinclair and Coulthard's (1975) categorizing each utterance as an initiation, response, or feedback (Taherdoost, 2021).

To ensure inter-rater reliability, researcher used data triangulation. Triangulation is defined as a data collection technique that combines various existing data collection techniques and data sources (Donkoh et al., 2023). In this research, data was obtained through observation (school environment), documentation by recording sound during the learning process. Testing the validity of this data was carried out by researchers and thesis supervisors as well as experts in the field of classroom discourse analysis. Limitations of this study include the small sample size and the specific context of the chosen classroom. The findings may not be generalizable to other classrooms or teaching contexts.

C. FINDINGS AND DISCUSSION

This section presents the results of the analysis of IRF patterns observed in the classroom environment. The result of analysis found that there were 29 interactions among teacher and students the results are that the response stage is the most dominant, namely 12 times (41.38%), followed by the initiation stage, namely 10 times (34.48%) and the feedback stage is the least with 7 times (24.14%).

IRF move	frequency	percentage
Initiations	10 times	34.48%
Response	12 times	41.38%
Feedback	7 times	24.14%
Total	29 times	100%

The interaction began with the teacher asking questions about the material on the board as an initiator and then the students gave verbal responses in the interaction. Likewise with the feedback phase given by the teacher in the form of repeating answers from students. To better understand the IRF patterns during the interaction, the analysis results are shown below:

1. Initiation.
The most prominent pattern found in this analysis is the teacher's use of questions as a form of Initiation in the IRF sequence. A total of 10 instances (34.48%) of initiation moves were identified during the classroom interaction. These initiations function to involve students in

the learning process, check prior understanding, and stimulate further thinking. For example, the teacher began the session by asking,

> T: *"Oke, berikutnya apa?"*
> Okay, what's next? (translation version)

This question served as a bridge to recall previous material and prepare students for the upcoming content. According to Sinclair and Coulthard (1975), such initiations act as a means to open the discourse and guide the flow of interaction. Subsequent questions followed a similar pattern:

> T: *"Apa contohnya?"*
> What is the example? (translation version)
> T: *"May I give you a hand, artinya apa?"*
> What does "may I give you a hand" mean? (translation version)
> T: *"Give artinya apa?"*
> What does give mean? (translation version)
> T: *"You?"*
> T: *"A hand?"*
> T: *"intinya menawarkan.?"*
> The point is to offer.? (translation version)

These utterances demonstrate how the teacher deconstructs an English expression and prompts students to engage in meaning-making. By doing so, the teacher scaffolds student understanding while retaining control of the discourse. Another question,

> T: *"yg lain.?"*
> others? (translation version)

The above initiation is used by the teacher to ensure whether there are students who want to participate by providing other answers.

> T: *"Paham?"*
> Do you understand? (translation version)
> T: *"karena ini ungkapan atau expression jadi artinya bisakah saya membantu."*
> because this is an expression or saying so it means maybe I'm helping
> (translation version)

The statement above was used to confirm comprehension at the end of a sequence. This shows the teacher's strategic use of initiation not only to elicit responses but also to assess understanding and reinforce concepts. These findings suggest that teacher-initiated questions serve both pedagogical and interactional functions. In line with Sinclair and Coulthard's (1975) framework, such initiation moves are essential for maintaining classroom discourse structure. Moreover, this pattern reflects what Hardman (2008) describes as *structured dialogic teaching*, where teachers use questioning not only to assess knowledge but also to promote student thinking. However, while the teacher's frequent questioning encourages participation, the next section will explore whether these interactions lead to meaningful student responses (i.e., the R in IRF) or remain limited to mechanical recall.

2. Response
The second pattern is the responds stage which is the most dominant stage with 12 times (41.38%). Most of the students' responses were answers to questions given by the teacher, but the answers given were answers that were answered together with other students, but there were also a few students who dared to give their own answers. For example, students respond to teacher questions

> SS: *"offering.!"*

The first response given by the students was to answer the teacher's questions about the material that would be discussed today, thus the teacher triggered the students to remember the lesson in the previous meeting, then continue with.

> S1:   *"can I help u.!"*
> SS: *"can I help u."*
> S2:   *"may I help u"*

These utterances show how the students collectively responded to the teacher's questions. This response occurs because the teacher's initiation encourages students to participate in class interactions, thus enabling students to gain knowledge in using English. However, some students were able to provide answers independently, as shown below:

> S1:   *"bolehkah aku membantumu!!"*
>   may i give you a hand.! (translation version)

Then in this case, one of the students gave an answer to the teacher's question about the meaning of "may i give you a hand" in Indonesian, then when the teacher asked if there was an alternative answer the student answered

> SS: *"ngak tau pak.!"*
>   we don't know sir.! (translation version)

All the students confirm teacher's questions.

> SS: *"memberi.!"*
>   Give.! (translation version)
> SS: *"kamu.!"*
>   You.! (translation version)
> SS: *"tangan.!"*
>   A hand.! (translation version)
> SS: *"muu.!!"*
>   You.! (translation version)
> SS: *"bantuan.!"*
>   A help.! (translation version)

These utterances are the students' responses to the teacher's questions about translation, which were also answered together. From these responses, it can be seen that the students have sufficient English language skills in basic vocabulary.

> SS: *"paham.!"*

Understand.! (translation version)

Finally, students confirm their understanding of the explanation given by the teacher. Of all the responses, most students gave correct answers, with many responding collectively, while a few students dared to answer individually. Furthermore, this finding reflects the *self determination theory* (SDT) by Edward Deci and Richard Ryan (1985). Students' difficulty expressing ideas in English is one of the reasons they struggle to engage in IRF conversations, particularly when responding to teachers or other peers in English. This stems from their lack of English language skills. Therefore, students need to carefully consider what they want to convey and how to translate it. Social factors also influence students' interactions in class, students admitted to feeling embarrassed to respond in class, this impacted their confidence in speaking. Therefore, they felt embarrassed to respond or speak in front of the class (Rone, et al,. 2023). In addition, students' lack of preparation for learning is also a factor. Students are often unprepared to participate in learning. This occurs not only in the classroom, but also due to students' lack of preparation for learning at home. As a result, during class discussions, students are unable to respond effectively to teacher questions.

3. Feedback.
The last pattern is the "feedback" stage which is the least, namely 7 times (24.14%), the feedback given by the teacher was such as providing an explanation of the responses given by the students, and also confirming the students' understanding of the material explained.

> T: *"ini artinya sama yaitu "apa yg bisa saya bantu"*
>   This means the same as "what can I help you" (translation version)
> T: *"ini semua variasi"*
>   These are all variations (translation version)
> T: *"ada lagi what can I do for you"*
>   There is another "what can I do for you" (translation version)
> T: *"nah ini varian juga "may I give you a hand"*
>   Well, this is also a variant May I give you a hand (translation version)
> T: *"oke bisa"*
>   Ok, that's fine (translation version)
> T: *"jadi ini hanya variasi yg artinya "bolehkah aku membantmu"*
>   So this is just a variation that means may I help you
> T: *"kalau diartikan may I "bolehkah saya"*
>   If translated may I "may I" (translation version)

Based on the findings above, according to Fredricks et al. (2004) in *Student Engagement Theory*, low levels of student behavioral and cognitive involvement can lead to a reduction in the intensity of feedback from teachers. Teacher feedback rarely occurs due to the lack of response from students, the responses given by students are mostly just repetitions of the explanations given by the teacher. As a result, the teacher only uses verbal responses to answer student responses, but the teacher also uses material explanations and expanded feedback at this stage as a form of feedback, expanded feedback occurs when the teacher doesn't just repeat an identical or similar answer to the student's, but adds a few words. This indicates that the teacher wants to add more information about the student's answer. Expanded feedback can make feedback more informative and comprehensive. Feedback is useful for teachers to motivate students to start interactions (Suryadi,et al,. 2022). The

analysis using Sinclair and Coulthard's (1975) IRF (Initiation-Response-Feedback) pattern in this study indicate that the most dominant interaction that occurs between I, R, and F in class X culinary 2 is student response with a percentage of 41.38% followed by teacher initiation 34.48% and feedback 24.14%, student response is the most dominant stage but the responses given by students are mostly repetitions, this makes the role of teachers very necessary in classroom learning. In relation to engagement during the teaching and learning process in X culinary class 2. Walsh (2011) asserts that interaction is a means to demonstrate how educators can generate learning opportunities by utilizing language and interaction resources. Teachers promote student engagement by using both verbal and non-verbal methods to develop language that encourages students to establish learning goals. When learning English as a second language, there are various advantages and disadvantages regarding teacher-student interactions that emphasize the teacher solely as a learning facilitator (Rahmania, 2025). Conversely, in non-English speaking nations, English instructors must exhibit increased patience in guiding students to speak English by first introducing vocabulary before encouraging writing and speaking, which creates the perception that teachers supply all necessary material to their students.

This aligns with the work of Mitchel and Martin (1997) in the book by Stave Walsh that asserts that assigning all tasks to students unfamiliar with learning English is ineffective and adequate for learning a foreign language, however, guidance is necessary, along with the role of educators to arrange and supply resources initially, yet according to the results of (Musumeci, 1996) Stave Walsh's book suggests that if the focus of interaction solely revolves around the teacher or When the teacher elaborates further, a number of students tend to be quieter and appear to comprehend better. what the instructor clarifies, yet many of them feel shy to articulate what they do not comprehend in relation to the content that has been discussed up to this point. Conversely, this also has drawbacks. To teach students to become more self-sufficient in their education, learning and interaction should not focus solely on the teacher; students should be encouraged to engage actively as well. articulate and communicate their understanding of the learning content.

Alongside the significant role played by teachers, students serve as a crucial factor in the learning process even though teachers facilitate it, if students lack the desire to learn from their errors or do not make an effort to improve, then the teacher's efforts in class will be pointless (Serin, 2018). Based on the findings of the study, this study is almost similar to the results of Mitiku Teshome Abeti's study (2022) where students participated less during class. However, there are several differences. Ambeti's study showed that teachers provided more initiations but student responses tended to be minimal. However, in this study, students gave a more dominant response but only in the form of repetition. This occurred due to a lack of student interest in learning English. Considering that this study was conducted at a culinary vocational school where English is a plus skill, not a primary skill that must be developed by students, most students preferred practical lessons in the practice room rather than lessons in the classroom, especially English lessons which are considered relatively difficult for students to learn.

Based on the research results, there are two solutions to overcome students' difficulties in learning IRF in conversation which solutions for teachers and solutions for students. The first solution for teachers is to limit initiations so that students can respond appropriately, If the teacher tries to approach students by making a pleasant first impression, both generally and regarding the material they are using. Then, gradually increase the difficulty level of the

initial initiation so that students can respond quickly and consistently. Once the initial conversation has successfully engaged students, they can move on to a more in-depth discussion of the material. Secondly, for students, some students are not ready to participate in lessons. This is because they lack responsibility in studying the material or topics previously presented by the teacher. However, if students have prepared themselves for the lesson, they will certainly be able to overcome any difficulties that arise during class.

D. CONCLUSION

This study aims to examine the Initiation–Response–Feedback (IRF) interaction pattern in high school English classes to determine the most effective strategies for increasing student engagement during class and enhancing interactions between teachers and students. The findings of this study showed 29 interactions between teachers and students. The results showed that the response stage was the most dominant, namely 12 times (41.38%), followed by the initiation stage, namely 10 times (34.48%), and the feedback stage, namely 7 times (24.14%). However, although student responses were the most dominant stage, most student responses were only repetitions, this makes the role of the teacher as a facilitator in the learning process very important to identify their learning needs, There are two solutions to overcome these findings, solutions for teachers and solutions for students, Teachers are recommended to use new initiation strategies so that students have more opportunities to provide effective responses and teachers are advised to provide formative feedback regularly to help students understand their strengths and weaknesses during the learning process. And suggestions for students are to start implementing time management by creating a regular study schedule so that students have provisions to receive lessons in class. The limitations of this study include the relatively small sample size and the specific context of the selected class, so it cannot represent and generalize the population as a whole, and this study was conducted in one class and one subject which does not fully represent other classes or other subjects in the school, suggestions for further researchers are to explore similar findings in various educational contexts or environments, as well as with larger and more diverse samples that can offer a broader perspective and increase the generalizability of the results.
.

E. REFERENCES

Atmojo, F. N. D., Saleh, M., & Widhiyanto, W. (2020). The The Implementation of Initiation Response Feedback (IRF) in EFL Writing Class. *English Education Journal,* 10(2), 225–233. https://doi.org/10.15294/eej.v10i1.34465

Coulthard, M., & Brazil, D. (1992). Exchange Structure. In M. Coulthard (Ed*.), Advances in Spoken Discourse Analysis* (pp. 50-78). London: Routledge.

Creswell, J. W. (2012). *Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research* (4th ed.). Boston: Pearson Education.

Dalia, A. C., & Putra, F. R. (2024). The Initiation, Response, and Feedback (Irf) in English Language Teaching: a Literature Review. *Jurnal Ilmiah Spectral*, *10*(1), 043-053.

Dayag, D.T., Gustilo, L. E., Flores, E.G., Borlongan, A. M., & Carreon, M. C. (2008). *Classroom discourse in selected philippine primary schools*. British Council

Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. Plenum.

Dehalwar, K. S. S. N., & Sharma, S. N. (2024). Exploring the distinctions between quantitative and qualitative research methods. *Think India Journal*, *27*(1), 7-15.

Donkoh, S., & Mensah, J. (2023). Application of triangulation in qualitative research. *Journal of Applied Biotechnology and Bioengineering*, *10*(1), 6-9.

Hall, G. (2011). *Exploring English Language Teaching.* Pearson Longman.

Hardman, F. (2008). A sociocultural perspective on classroom interaction. *International Journal of Educational Research,* 47(3), 190–196.

Hashmi, S. G. Sinclair and Coulthard Model: Understanding Linguistic Choices and Patterns in Classroom Teaching. *International Journal of Teaching, Learning and Education*, *4*(3), 619171.

Kurniawati, R. A., and Fitriati, S., W. (2017) Realization of teacher's questions to uncover students‟ cognitive domain of English subject matter in classroom interaction. *English Education Journal,* 7(3), 194 – 200.

Lau, A., & Bratby, M. (2024). Collecting qualitative data via video statements in the digital era. *Labour and Industry*, *34*(2), 101-113.

Mathieu, C. S., Marcos Miguel, N., & Jakonen, T. (2021). Introduction: classroom discourse at the intersection of language education and materiality. *Classroom Discourse,* 12(1–2), 1–14. https://doi.org/10.1080/19463014.2020.1870151

Mitchell, R., & Martin, C. (1997). Rethinking the role of the teacher in second language classrooms. In S. Walsh (Ed.), *Investigating classroom discourse*. Routledge.

Musumeci, D. (1996). Teacher-dominated interaction in the foreign language classroom: Effects on student participation. *Language Teaching Research,* 1(2), 121-146.

Nasution, R. D. (2022). Initiation Response Feedback (IRF) Interaction in Contextual Oral Language Studies.

Nunan, D. (1999). Second language teaching and learning. Boston: Heinle Publishers

Rahmania, A. (2025). Teacher Interaction Analysis by Using Initiation, Response and Feedback (IRF). *Journal of English Language Teaching and Islamic Integration*, *8*(01), 39-42.

Rone, N., Guao, N. A., Jariol Jr, M., Acedillo, N., Balinton, K., & Francisco, J. (2023). Students' lack of interest, motivation in learning, and classroom participation: How to motivate them?. *Psychology and Education: A Multidisciplinary Journal*, *7*(8), 1-1.

Rustandi, Andi., & A.H, Mubarok. (2017). Analysis of IRF (Initiation-Response-Feedback) on Classroom Interaction in EFL Speaking Class. *Journal of English Education, Literature, and Culture.* 2(1). 239-250.

Rymes, B. (2015). Classroom Discourse Analysis. *Classroom Discourse Analysis, October,* 3–8. https://doi.org/10.4324/9781315775630

SaThierbach, K., Petrovic, S., Schilbach, S., Mayo, D. J., Perriches, T., Rundlet, E. J. E. J. E. J., Jeon, Y. E., Collins, L. N. L. N., Huber, F. M. F. M., Lin, D. D. H. D. H., Paduch, M., Koide, A., Lu, V. T., Fischer, J., Hurt, E., Koide, S., Kossiakoff, A. A., Hoelz, A., Hawryluk-gara, L. A., … Hoelz, A. (2015). No 主観的健康感を中心とした在宅高齢者における 健康関連指標に関する共分散構造分析Title. *Proceedings of the National Academy of Sciences,* 3(1), 1–15.

Serin, H. (2018). A comparison of teacher-centered and student-centered approaches in educational settings. *International Journal of Social Sciences & Educational Studies*, *5*(1), 164-167.

Sinclair, J., and Coulthard, M. (1975). *Towards an Analysis of Discourse: the English Used by Teachers and Pupils.* Oxford: Oxford University Press

Sugiyono, (2018). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D* (Edisi Ke-14). Alfabeta, Bandung.

Suryadi, A. I., Nurkamto, J., & Setyaningsih, E. (2022). Examining Indonesian Teacher Roles in EFL Classroom: Insights from Elementary Teacher Narratives. *Jurnal Pendidikan Progresif*, *12*(1), 307-322.

Tabios, J. V. (2025). DISCOURSE ANALYSIS STUDY: INVESTIGATING THE INFLUENCE OF DIVERSE TEACHER QUESTIONING TECHNIQUES ON STUDENT ENGAGEMENT AND COMPREHENSION. *International Journal Of All Research Writings*, *6*(11), 194-199.

Taherdoost, H. (2021). Data collection methods and tools for research; a step-by-step guide to choose data collection technique for academic and business research projects. *International Journal of Academic Research in Management (IJARM),* 10(1), 10-38.

Uswatun Hasanah, Neni Afrida Sari, & Rahmad Husein. (2024). Initiation-Response-Feedback (IRF) Pattern of Sinclair and Coulthard Model In English Classroom Interaction. *Sintaksis : Publikasi Para Ahli Bahasa Dan Sastra Inggris,* 2(5), 340–348. https://doi.org/10.61132/sintaksis.v2i5.1102

Walsh, S. (2011). *Exploring classroom discourse*: Language in action. Routledge.