THE ANALYSIS OF CHATGPT 3.5 INVOLVEMENT IN THE JIGSAW LEARNING PROCESS IN A QUALITATIVE RESEARCH METHOD COURSE

(A Case Study at the English Tadris Study Program of IAIN Curup)

THESIS

This Thesis is submitted to fulfill the requirement
for "Sarjana" degree in English Language Education

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Assalamualaikum Warohmatullahi Wabarokatuh

Semoga bapak selalu dalam kesehatan dan lindungan dari Allah SWT. dalam setiap urusannya.

Setelah mengadakan pemeriksaan dan juga perbaikan, maka kami berpendapat bahwa skripsi atas nama **JESI NURAINI (22551021)** sebagai mahasiswa dari program studi Tadris Bahasa Inggris, dengan judul **"The Analysis of ChatGPT 3.5 Involvement in the Jigsaw Learning Process in a Qualitative Research Method Course"** sudah dapat diajukan dalam Sidang Munaqasah di Institut Agama Islam Negeri (IAIN) Curup.

Demikian permohonan ini kami ajukan, besar harapan kami agar bapak dapat menyetujui hal ini. Terima kasih.

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PREFACE

All praise and gratitude are due to Allah SWT, the Lord of the worlds, for His endless mercy, grace, and blessings, which have empowered the author to complete this thesis. Peace and salutation be upon the Prophet Muhammad SAW, his family, his companions, and his faithful followers. This thesis, entitled "**The Analysis of ChatGPT 3.5 Involvement in the Jigsaw Learning Process in a Qualitative Research Method Course**", is submitted to fulfill one of the requirements for the Sarjana (S1) degree at the English Tadris Study Program, Faculty of Tarbiyah, State Islamic Institute (IAIN) Curup.

Although the author has dedicated significant effort and analytical rigor to this research, there is always room for improvement. The author recognizes that the study of AI in education is a rapidly evolving field, and this thesis represents just one step in a much larger academic conversation. Therefore, constructive feedback, criticisms, and suggestions are highly welcomed.

The author hopes that the findings of this study will serve as a meaningful foundation for future educators, curriculum designers, and researchers in navigating the delicate balance between utilizing AI support and preserving the irreplaceable value of human interaction in cooperative learning environments.

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matter how hard the thesis phase gets, please remember that I am always here for you. Love you all, always.

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MOTO

"When life gave me dead ends, I built my own doors."

Jesi Nuraini.

I proudly dedicate this thesis to my beloved mother, my father, my two incredible sisters, and myself. To my parents, no words can ever represent your unconditional love, which has been the core of my strength to keep pursuing and embodying this arduous process of life. To my two great sisters, thank you for always accompanying my path; you both became the sturdy bridge that allowed me to safely cross the hardest times and survive this long journey. And lastly, to myself: thank you for refusing to surrender, for surviving the darkest days, and for making it to this finish line.

ABSTRACT

Jesi Nuraini : The Analysis of ChatGPT 3.5 in the Jigsaw Learning Process in a Qualitative Research Method Course
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The rapid emergence of Generative Artificial Intelligence (GenAI) has significantly altered how students engage with complex academic materials. This study explores the step-by-step integration and the pedagogical roles of ChatGPT 3.5 within the Jigsaw cooperative learning method in a Qualitative Research Method course at the English Tadris Study Program, IAIN Curup. Using a qualitative descriptive approach, data were gathered through semi-structured interviews with 14 students and one lecturer, supplemented by syllabus document analysis. The findings reveal that students utilized ChatGPT 3.5 primarily as a cognitive scaffolding tool to translate and simplify abstract qualitative paradigms during their Expert Group preparation. Based on the Sabzalieva et.al framework, the AI functioned effectively as a *Study Buddy*, *Possibility Engine*, *Guide on the Side*, and *Exploratorium*. However, the roles of *Socratic Opponent* and *Collaboration Coach* were entirely absent, as students prioritized instant answers over critical debate. Consequently, while the AI successfully boosted individual confidence and reduced linguistic barriers, it simultaneously fostered judgment dependency and bypassed the critical verification phase. Furthermore, during the Home Group teaching phase, the real-time use of AI disrupted authentic peer interaction, inadvertently undermining the core Jigsaw principle of positive interdependence. Ultimately, this study concludes that while ChatGPT enhances individual task efficiency, its unchecked integration requires strict pedagogical boundaries to preserve critical thinking and meaningful human collaboration.

Keywords: *ChatGPT, Jigsaw method, cooperative learning, generative AI roles, qualitative research.*

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LIST OF ABBREVIATIONS

AI	**: Artificial intelligence**
LA	**: Laras Ariani**
SP	**: Stefani Putri**
LN	**: Lova Novriati**
MP	**: Melati Puspita**
GT	**: Gustiantara**
NS	**: Naila Shafira**
AN	**: Aisyah Nurhidayah**
SN	**: Sinta Nia**
TS	**: Titik Sandora**
RD	**: Reni Diana**
DF	**: Dwiki Farhan**
RS	**: Rajes Sadeva**
GC	**: Gita Cahyani**
DP	**: Dio Putra**
MRG	**: Mr. Guci**
QRM	**: Qualitative Research Method**
LLM	**: Large Language Models**
NLP	**: Natural Language Processing**

CHAPTER I

INTRODUCTION

A. Research Background

Artificial Intelligence is increasingly used in education, especially Large Language Models (LLMs) such as ChatGPT. Today, many students use AI tools to help them search for information, understand difficult concepts, and complete academic tasks.[1] This development does not only change how students learn individually, but it also influences teaching methods that are traditionally based on collaboration, including the Jigsaw cooperative learning method developed by Aronson.

Jigsaw is a cooperative learning method where students work in groups and depend on each other to achieve shared learning goals. Each student is responsible for mastering a part of the material and then explaining it to their group members. Through this process, students build teamwork, communication skills, and positive interdependence. In simple terms, students cannot succeed alone because they need information from their peers. This is why Jigsaw strongly emphasizes collaboration and mutual responsibility.[2]

The combination of ChatGPT 3.5, the Jigsaw cooperative learning method, and the Qualitative Research Method course creates a unique theoretical

[1] Muhammad Ali Chaudhry and Emre Kazim, "Artificial Intelligence in Education (AIEd): A High-Level Academic and Industry Note 2021," *AI and Ethics* 2, no. 1 (2022): 157–65, https://doi.org/10.1007/s43681-021-00074-z.

[2] Hira Moin et al., "Assessing the Impact of Jigsaw Technique for Cooperative Learning in Undergraduate Medical Education: Merits, Challenges, and Forward Prospects," *BMC Medical Education* 24, no. 1 (2024), https://doi.org/10.1186/s12909-024-05831-2.

tension in today's classroom. Fundamentally, the Jigsaw method is grounded in the theory of positive interdependence proposed by Johnson and Johnson, which dictates that students must rely on peer explanations to succeed, as they cannot master the material alone.[3] This mutual reliance is especially crucial in a Qualitative Research course. According to John W. Creswell, qualitative research requires researchers to understand philosophical assumptions, research designs, data collection procedures, and interpretative analysis processes in a holistic and reflective manner.[4] These components demand critical discussion, interpretation, and deeper conceptual understanding rather than simple memorization.

However, the arrival of ChatGPT 3.5 disrupts this social dynamic. As described by the Mike Sharples framework, generative AI functions as a highly efficient, personalized assistant that provides instant answers directly to the individual.[5] This creates a clear theoretical conflict, while the Jigsaw method strictly requires students to seek answers from their peers, ChatGPT allows them to bypass this process by asking the AI directly. Grassini warns that such easy access to AI can lead to individualization in group work, where students choose the speed of technology over the effort of human collaboration.[6] Therefore, the main interest of this research lies in this specific tension on how a technology

[3] David W. Johnson and Roger T. Johnson, *Learning Together and Alone: Cooperative, Competitive, and Individualistic Learning* (Boston: Allyn and Bacon, 1999).

[4] John W. Creswell & Cheryl N. Poth (2018/2023). Qualitative Inquiry and Research Design: Choosing Among Five Approaches (4th ed.). Thousand Oaks, CA: Sage Publications.

[5] Mike Sharples and Mike Sharples, "Towards Social Generative AI for Education : Theory , Practices and Ethics and Ethics ABSTRACT," *Learning: Research and Practice* 9, no. 2 (2023): 159–67, https://doi.org/10.1080/23735082.2023.2261131.

[6] Simone Grassini, "Education Sciences Shaping the Future of Education : Exploring the Potential and Consequences of AI and ChatGPT in Educational Settings," 2023.

designed for individual speed and efficiency operates inside a pedagogical method designed for social cooperation within a complex academic subject.

This theoretical conflict was clearly observed in reality at the English Tadris Study Program, specifically in the Qualitative Research Method course in the sixth semester of 2025. In this class, the lecturer used the Jigsaw method to help students master the material. However, observation showed that students autonomously decided to use ChatGPT 3.5 to help them, without being told to do so.

This situation created a contradiction in the classroom. On one hand, ChatGPT helped students find information and understand complex qualitative topics more quickly. On the other hand, the main principles of the Jigsaw method such as human interaction, peer teaching, and collaborative learning were reduced. Because ChatGPT provided instant answers, some students skipped the important process of thinking and discussing ideas with their group members. As a result, their motivation to have deep discussions decreased. Many students became more focused on their screens rather than interacting with their peers. This observation showed a potential problem about the uncontrolled use of AI could weaken the cooperative spirit of the Jigsaw learning process.

While many experts admit that AI is useful in education, current research has not fully explored this specific student-led phenomenon. Previous studies have mostly looked at different angles. For example, Ortega et al. discussed how

hard it is for teachers to manage Jigsaw classes that use technology.[7] Zheng et al. found that AI feedback can help students learn without making them tired.[8] Other reviews by Kovari[9] and Tan et al.[10] generally agreed that AI improves grades and learning outcomes.

However, an important research gap still exists. Most previous studies focus on top-down AI integration, where AI is officially provided and controlled by teachers or institutions. Very few studies examine the bottom-up situation, when students independently use generative AI tools such as ChatGPT during cooperative learning. It remains unclear how students use these tools on their own during the Jigsaw process, or how this use may change their learning roles in the group.

It is very important to investigate this gap to make sure that traditional learning methods like Jigsaw can adapt to the AI era without losing their main purpose. This study is crucial because by understanding how students use ChatGPT, lecturers can design better teaching strategies that treat AI as a helpful partner, not a distraction. If this is not analyzed, there is a risk that the important

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[7] Alejandro Ortega-Arranz et al., "Collaborative Activities in Hybrid Learning Environments: Exploring Teacher Orchestration Load and Students' Perceptions," *Computers and Education* 219, no. May (2024), https://doi.org/10.1016/j.compedu.2024.105105.

[8] Lanqin Zheng, Lu Zhong, and Jiayu Niu, "Effects of Personalised Feedback Approach on Knowledge Building, Emotions, Co-Regulated Behavioural Patterns and Cognitive Load in Online Collaborative Learning," *Assessment and Evaluation in Higher Education* 47, no. 1 (2022): 109–25, https://doi.org/10.1080/02602938.2021.1883549.

[9] Attila Kovari, "A Systematic Review of AI-Powered Collaborative Learning in Higher Education: Trends and Outcomes from the Last Decade," *Social Sciences and Humanities Open* 11, no. February (2025): 101335, https://doi.org/10.1016/j.ssaho.2025.101335.

[10] Seng Chee Tan, Alwyn Vwen Yen Lee, and Min Lee, "A Systematic Review of Artificial Intelligence Techniques for Collaborative Learning over the Past Two Decades," *Computers and Education: Artificial Intelligence* 3, no. September (2022): 100097, https://doi.org/10.1016/j.caeai.2022.100097.

social skills and human interactions in Jigsaw will be replaced by the convenience of technology. By mapping this process, this research hopes to contribute to a better learning model where technology supports, rather than replaces, the critical discussions needed to master Qualitative Research.

Based on the theoretical mix, the real phenomenon in the classroom, and the lack of research on this specific topic, there is an urgent need to analyze this issue. Therefore, the researcher aims to conduct a study entitled "***The Analysis of ChatGPT 3.5 Involvement in the Jigsaw Learning Process in a Qualitative Research Method Course."***

B. Research Questions

Based on the problems found in the background, the researcher formulates the research problems as follows:

1. How do students use ChatGPT 3.5 step by step in the Jigsaw learning process in the Qualitative Research Method course?
2. What are the roles of ChatGPT 3.5 play on student's learning process within Jigsaw Learning Method in the Qualitative Research Method course?

C. Research Objectives

Based on the research questions, the objectives of this study are:

1. To describe the step-by-step process of how students use ChatGPT 3.5 in the Jigsaw Learning Method in the Qualitative Research Method course.
2. To analyze the roles of ChatGPT 3.5 in students' learning process within Jigsaw Learning Method in the Qualitative Research Method course.

D. Delimitation of the Research

This study is delimited to students of the English Language Teaching Program Class of 2022 who completed the Qualitative Research Method course in 2025. The course was purposively selected because the integration of AI within the Jigsaw Learning Method was identified in this class context.

Although 3 classes were confirmed by the course lecturer to have implemented the Jigsaw Learning Method, this study deliberately focuses only on students who used ChatGPT during the Jigsaw sessions in the Qualitative Research Method course. Therefore, students who did not use ChatGPT during the activity were not included in the analysis.

In terms of tool selection, this research is delimited to the use of ChatGPT 3.5. Based on a preliminary inquiry involving 30 students, 26 of them reported using ChatGPT 3.5 as their primary generative AI tool due to its accessibility and ease of use. For this reason, the study does not compare ChatGPT with other AI platforms.

Furthermore, the study is limited to examining how the use of ChatGPT influences or plays a role in the essential elements of the Jigsaw method, particularly during the teaching phase in which students conduct peer teaching within their home groups. The study seeks to explore how ChatGPT supports, shapes, or potentially alters the students' roles as experts when explaining the material to their peers, from the expert-group discussion phase until the completion of the Jigsaw cycle.

It does not compare Jigsaw with other instructional methods, nor does it evaluate different pedagogical models. The focus of the investigation is on students' understanding, experiences, and perspectives regarding the use of ChatGPT within the Jigsaw framework in the Qualitative Research Method course.

E. Definition of Key Terms

There are several key terms connected to this study defined by the researcher. These are as follows:

1. ChatGpt 3.5

ChatGPT 3.5 in this study refers specifically to the generative AI version developed by OpenAI that was predominantly used by students during the implementation of the Jigsaw Learning Method in the Qualitative Research Method course.

Although multiple versions of ChatGPT exist and continue to develop, this research deliberately limits the term ChatGPT to ChatGPT 3.5 only. This delimitation is based on empirical data collected through a preliminary questionnaire and interview sessions. The majority of students reported using ChatGPT 3.5 due to its accessibility, availability, and familiarity at the time the learning activity was conducted.

Therefore, all indicators, analysis, and interpretations in this study refer exclusively to ChatGPT 3.5. Other versions or updated models are not included, compared, or evaluated in this research. This operational definition ensures conceptual clarity and prevents ambiguity regarding which AI version

is being analyzed. Futhemore, its operational role is centered on how students autonomously utilize its generative functions to enhance their engagement during academic tasks.[11].

2. Jigsaw Learning Method

The Jigsaw method is a cooperative learning strategy that fosters mutual interdependence by dividing academic material into sections for students to master in expert groups before teaching their original home groups. This research utilizes the Jigsaw framework as the primary pedagogical structure to observe how peer-to-peer teaching is transformed through the integration of AI tools. It emphasizes the cycle of individual accountability and collective knowledge construction among students.[12]

F. Significance of the Research

This research is expected to provide highly valuable contributions to students, teachers, and academic institutions by offering a nuanced understanding of student-initiated ChatGpt 3.5 involvement in a collaborative learning context. The significance is elaborated as follows:

1. For Teachers

For teachers, this study provides concrete insights into how students actually integrate ChatGPT 3.5 within the Jigsaw Learning Method, including their patterns of reliance, critical engagement, and collaborative use. The

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[11] Gwo Jen Hwang et al., "Vision, Challenges, Roles and Research Issues of Artificial Intelligence in Education," *Computers and Education: Artificial Intelligence* 1 (2020): 1–5, https://doi.org/10.1016/j.caeChatGpt 3.5.2020.100001.

[12] Aronson, Elliot, 2021/02/04, 146-164, 9781003106760, The Jigsaw Classroom, 10.4324/9781003106760-7

findings highlight the importance of carefully aligning specific AI tools with instructional techniques to ensure that AI supports, rather than disrupts, the intended collaborative learning objectives.

2. For Students

This study raises students' awareness of how their use of ChatGPT 3.5 within the Jigsaw Learning Method influences their depth of understanding and level of critical engagement. It encourages students to use AI not merely as a shortcut for task completion, but as a tool to expand references, refine ideas, and strengthen collaborative learning processes.

3. For the Institution

The findings indicate that AI adoption in the classroom requires structured academic supervision and clear pedagogical regulation. The study suggests that institutional readiness in integrating AI should not only focus on access, but also on guiding responsible and academically meaningful use within collaborative learning environments.

G. Organization of the Research

The framework of this research is structured into five distinct chapters to ensure a clear and logical presentation of the study. Chapter I provides a comprehensive introduction to the research. This chapter covers the background of the study, identifies the research problem, and outlines the research questions. It also details the research objectives, the delimitation of the research, the significance of the study for various stakeholders, and concludes with an overview of the thesis organization.

Chapter II presents the literature review. This chapter explains the theoretical framework underpinning the study, focusing on key concepts such asChatGpt 3.5 in Education, the principles and structure of the Jigsaw Learning Method, and the nature of student-initiated ChatGpt 3.5 involvement in collaborative learning environments. It also connects these theories to previous related findings in the field.

Chapter III describes the research methodology employed in this study. It details the qualitative research design with a case study approach. This chapter also specifies the subject of the research, the methods for data collection including semi-structured interviews and documentation checklists, and the techniques that will be used for analyzing the collected qualitative data.

Chapter IV is dedicated to the findings and discussion. This chapter will present and analyze the data gathered to answer the research questions. The discussion will involve an in-depth exploration of the types of students who use ChatGpt 3.5, the step-by-step process of their engagement with ChatGpt 3.5 tool during the Jigsaw activity, and the resulting roles of ChatGPT involvement for their collaborative learning process in the Qualitative Research Method course.

Chapter V consists of the conclusion and suggestions. This final chapter will summarize the key findings discussed in the previous chapter and draw overall conclusions. Furthermore, it will offer practical suggestions for educators and institutions and provide recommendations for future research to broaden the understanding of this emerging field.

CHAPTER II

LITERATURE REVIEW

This chapter presents a comprehensive literature review that serves as a theoretical framework for analyzing the involvement of ChatGPT 3.5 in the Jigsaw Learning Method in the context of the Qualitative Research Methods course. This discussion is based on the main theories that will be used to indicate research instruments and analyze data, namely Collaborative Learning Theory, the structure of the Jigsaw Method, the impact model of artificial intelligence, and the conceptual challenges of Qualitative Research Methods.

A. ChatGPT 3.5

Artificial Intelligence (AI) has become one of the most influential technological innovations in higher education. To understand its role clearly, it is important to define the concept accurately. According to a foundational guide published by UNESCO.[13] ChatGPT is part of a branch of AI called Generative AI. Generative Artificial Intelligence refers to algorithms that can produce new content such as text, images, audio, code, simulations, and videos by learning patterns from large amounts of training data.

Specifically, ChatGPT (Chat Generative Pre-trained Transformer) version 3.5, developed by OpenAI, operates on a Large Language Model (LLM) architecture. As Sabzalieva et.al defines LLMs as systems that utilize Natural

[13] Emma Sabzalieva and Arianna Valentini, *ChatGPT and Artificial Intelligence in Higher Education: Quick Start Guide* (Paris: UNESCO, 2023), 10.

Language Processing (NLP) to understand, summarize, predict, and generate human-like text in response to user prompts.[14] In an educational context, this capability enables ChatGPT 3.5 to function as a sophisticated conversational assistant capable of providing real-time feedback, synthesizing literature, and clarifying complex information.

While many theories see AI as a tool that can improve effectiveness, this research looks at it more critically. The efficiency offered by ChatGPT 3.5 can sometimes become a cognitive shortcut where students focus on finishing tasks quickly rather than fully understanding the material. Therefore, to evaluate whether students use AI responsibly, it is necessary to examine their operational steps.

1. The Operational Framework of ChatGPT Usage

Currently, there is no single, universally agreed-upon theoretical framework that strictly outlines the sequential steps of using ChatGPT within the context of the Jigsaw teaching method. To ensure the research question is addressed by a single, focused framework, the researcher synthesizes the official guidelines established by *the Indonesian Ministry of Education, Culture, Research, and Technology or Dikti,* and the foundational guide on *ChatGPT and AI in Higher Education* authored by Sabzalieva and Valentini published by UNESCO.

[14] Emma Sabzalieva and Arianna Valentini, *ChatGPT and Artificial Intelligence in Higher Education: Quick Start Guide* (Paris: UNESCO, 2023), 11.

The core philosophy of the guidelines established by the Indonesian Ministry of Education, Culture, Research, and Technology (Dikti) emphasizes the principles of academic integrity and human accountability. These guidelines mandate that Generative AI must strictly function as a supportive learning tool, not as a replacement for a student's critical thinking and cognitive engagement. If a student bypasses this cognitive process by directly copying an AI-generated answer, they surrender their academic accountability. Furthermore, within the Jigsaw method, the essential character is peer-teaching. If a student blindly depends on ChatGPT without following proper evaluative steps, the authentic peer-teaching essence of Jigsaw becomes ambiguous and is fundamentally eroded.

To systematically determine whether students utilize ChatGPT responsibly as a supportive tool or incorrectly surrender their cognitive control within their Jigsaw Expert Group, a structured analytical instrument is required. Summarizing the key concepts from the flowchart of GenAI Usage by Dikti and the procedural interaction use of ChatGPT by Sabzalieva and Valentini. Those are as follows:

a. Planning and Prompt Construction

This initial step involves identifying the topic and crafting the instructions. According to Dikti, students must first identify the difficult concepts they intend to learn before creating a prompt in ChatGPT.[15] This

[15] Direktorat Jenderal Pendidikan Tinggi, Riset, dan Teknologi, *Buku Panduan Penggunaan Generative Artificial Intelligence pada Pembelajaran di Perguruan Tinggi* (Jakarta: Kemdikbudristek, 2024), hlm. 54-55.

is perfectly aligned with Sabzalieva and Valentini,[16] who assert that to produce relevant results, users must provide ChatGPT with specific prompts detailing how it should respond.

This concept is supported by Atlas, who emphasizes that ChatGPT for higher education requires well constructed conversational prompts to function effectively.[17] For instance, in the Jigsaw Expert Group, rather than typing a vague keyword like qualitative data, a student meticulously plans the prompt by writing, act as an academic tutor, explain the five main challenges of Qualitative Data Analysis.

b. Interaction and Answer Generation

Once the prompt is submitted, the interaction occurs as the AI immediately generates the response. Students act as active receivers who begin to read the initial explanation provided by the AI as an effort to comprehend the material. In this phase, Sharples theorized that the generated answers should position the AI as a Collaboration Coach and Study Buddy.[18]

The AI serves as a tool to help groups research and solve problems together, rather than providing a final absolute truth. For example, the student uses the generated text as a foundational draft to trigger group discussion, not as the final answer to be memorized.

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[16] Emma Sabzalieva dan Arianna Valentini, *ChatGPT and Artificial Intelligence in Higher Education: Quick Start Guide* (Caracas: UNESCO IESALC, 2023), hlm. 6.

[17] Stephen Atlas, *ChatGPT for Higher Education and Professional Development: A Guide to Conversational AI* (Rhode Island: University of Rhode Island, 2023)

[18] Emma Sabzalieva dan Arianna Valentini, *ChatGPT and Artificial Intelligence in Higher Education: Quick Start Guide* (Caracas: UNESCO IESALC, 2023), hlm. 6.

c. Critique and Revision

This step requires a critical cognitive process. Dikti requires students to deeply analyze the explanations and analogies provided by ChatGPT rather than passively accepting them.[19] If the generated output is unacceptable, biased, or lacking, Sabzalieva and Valentini direct students to modify their queries and click the regenerate response button to refine the answers.

This step is crucial to mitigate AI's cognitive bias and hallucinations because ChatGPT cannot distinguish between true and false.[20] An example of this step is when a student critiques a broad result and revises the prompt by asking, the previous answer is too general. Please regenerate the explanation specifically based on Creswell's theory.

d. Integration

The final step represents the peak of academic responsibility. Dikti states that students must apply the acquired understanding to reinforce their academic skills. In executing this application, Tiulkanov's decision-making flowchart firmly obligates students to verify each output word and sentence for accuracy and common sense before taking full responsibility for the generated information.[21]

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[19] Direktorat Jenderal Pendidikan Tinggi, Riset, dan Teknologi, *Buku Panduan Penggunaan Generative Artificial Intelligence pada Pembelajaran di Perguruan Tinggi* (Jakarta: Kemdikbudristek, 2024), hlm. 41.

[20] Emma Sabzalieva dan Arianna Valentini, *ChatGPT and Artificial Intelligence in Higher Education: Quick Start Guide* (Caracas: UNESCO IESALC, 2023), hlm. 11.

[21] Aleksandr Tiulkanov, "Flowchart: When is it safe to use ChatGPT?" (Januari 2023), dalam Emma Sabzalieva dan Arianna Valentini, *ChatGPT and Artificial Intelligence in Higher Education: Quick Start Guide* (Caracas: UNESCO IESALC, 2023), hlm. 6,

This integration step is important to maintain academic integrity when combining AI output with other sources, such as lecturer handouts. Sullivan et al. argue that the use of ChatGPT requires careful attention to academic honesty. This means students need to compare and check the AI-generated information with reliable academic sources to avoid misunderstanding.[22]

Ideally, this synthesized operational framework ensures that students go through a clear process of checking and evaluating AI outputs. However, this study focuses on the gap between this ideal process and real classroom practice. This research assumes that during Jigsaw activities, students under time pressure may skip critical steps acting as transmitters of unverified AI knowledge rather than true experts. By analyzing these four steps, the researcher aims to uncover whether the involvement of ChatGPT supports the students' learning or merely erodes the essential collaborative spirit of the Jigsaw method.

2. The Roles of ChatGPT

To analyze the specific functions adopted by ChatGPT in a high-level conceptual environment like the Jigsaw Method, a comprehensive classification is required. This study adopts the roles of generative AI in social learning proposed by Mike Sharples in his study titled *"Towards social*

[22] Miriam Sullivan, Andrew Kelly, dan Paul McLaughlan, "ChatGPT in higher education: Considerations for academic integrity and student learning," *Journal of Applied Learning & Teaching* 6, no. 1 (2023)

generative AI for education: theory, practices and ethics"[23], which conceptualize AI as a participant in collaborative educational dialogue. The framework was later reproduced and expanded in Sabzalieva and Valentini[24] in their *ChatGPT and GenAI in Higher Education Quick Start Guide* pusblished by UNESCO IESALC, who provided additional practical roles in higher education contexts. Therefore, this research draws upon both the original theoretical formulation by Sharples and its extended operationalization by Sabzalieva and Valentini.

Based on the highly academic nature of the Qualitative Research Methods course and the collaborative mastery demanded by the Jigsaw Expert Groups, the researcher has selected six specific pedagogical roles for empirical investigation. Four of these roles such as Possibility Engine, Socratic Opponent, Collaboration Coach, Exploratorium are anchored in Sharples' original framework and validated by Sabzalieva et.al,

Based on the nature of the course that highly conceptual and academic and the structure of the Jigsaw method that requiring collaborative mastery, synthesis, and presentation, the following six pedagogical roles of AI are the most relevant for empirical investigation. These roles directly support the core cognitive and collaborative demands placed on the Jigsaw Expert Groups.

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[23] Sharples and Sharples, "Towards Social Generative AI for Education : Theory , Practices and Ethics and Ethics ABSTRACT."

[24] Emma Sabzalieva dan Arianna Valentini, *ChatGPT and Artificial Intelligence in Higher Education: Quick Start Guide* (Caracas: UNESCO IESALC, 2023), hlm. 9.

The focus of this research is on observing how ChatGPT aids the Jigsaw Expert Group in achieving three primary goals such as mastery of complex theoretical content in Qualitative Research Methods, Collaboration in synthesizing this content, and Preparation to teach the material effectively. The roles are provided in this following table. The six selected roles are justified as follows:

a. Socratic Opponent

Defined by Sharples as a role where AI acts as a respondent to develop an argument or as an opponent according. Sharples explicitly states that students engage with ChatGPT as an opponent in an argument by starting with a contentious question and challenging the program to clarify or defend its position.

The Qualitative Research Methods course deals with highly abstract paradigms. The Socratic Opponent role is essential as it forces the Expert Group to defend their acquired knowledge. By challenging the group's initial findings, ChatGPT pushes students beyond surface-level recitation to a deeper, analytical understanding.

b. Guide on the Side

As strictly defined by Sabzalieva, in this role, AI acts as a guide to navigate physical and conceptual spaces. Students are often overwhelmed by specialized qualitative terminology (grounded theory, hermeneutics). As a Guide on the Side, ChatGPT provides immediate scaffolding, helping

the Expert Group navigate and orient themselves logically within the specific conceptual spaces they are assigned to master.

c. Exploratorium

According to Mike Sharples, this role appears when AI provides tools that allow students to explore, experiment, and interpret data. He explains that students can use AI to explore, visualize, and understand a database or design space with the help of ChatGPT.

In the Expert Group phase, students are required to collect comprehensive information. Through the Exploratorium role, the group can interpret examples of qualitative data, compare definitions from different authors, or ask for specific case studies. This process helps students develop a deeper and more comprehensive understanding of the material.

d. Collaboration Coach

According to Sharples define this role precisely as AI helps groups to research and solve problems together. The implementation example notes that working in groups, students use ChatGPT to find out information to complete tasks and assignments. The Jigsaw method is fundamentally collaborative. This role measures how ChatGPT assists the group in organizational efficiency, such as structuring their research questions or synthesizing various sources into a cohesive narrative for their group assignment.

e. Possibility Engine

According to Sharples, in this role, AI generates alternative ways of expressing an idea. Sharples further elaborates that in this scenario, ChatGPT helps to broaden perspectives where students can try rephrasing the prompt to obtain more extensive or nuanced replies from the AI" and subsequently compare and critique the AI responses.

After achieving mastery, the Expert Group must teach their material to the Home Group. The Possibility Engine is vital for taking complex, academic language and rephrasing it into simpler, more accessible analogies suitable for peer-teaching, directly supporting the communication goals of Jigsaw.

f. Study Buddy

Sabzalieva and Valentini explicitly defines this role as AI helps the student reflect on learning material. The implementation involves students explaining their current level of understanding to ChatGPT and ask for ways to help them study the material.

This represents the final self-assessment stage before dissemination. As a Study Buddy, ChatGPT helps the Expert Group test their readiness, ensuring the knowledge they bring back to the Home Group is accurate and confidently held.

Existing frameworks, such as Sharples describe AI as a tool that can act like a Socratic partner or a collaboration coach to encourage critical thinking and better group interaction. However, this research takes a

different view. It suggests that in real classroom situations, these ideal roles may not always appear. Instead, students may use AI mainly to simplify language and make their ideas easier to express, rather than to challenge their thinking. Therefore, this study does not automatically see AI as a critical learning partner. It considers the possibility that AI functions more as a language support tool that helps fluency, but does not necessarily deepen discussion or critical engagement as suggested by theoretical models.

To maintain analytical precision, the remaining roles identified in the frameworks such as Personal Tutor, Co-designer, Motivator, and Storyteller are deliberately excluded. Their primary theoretical functions do not align with the core task of the Jigsaw Expert Group. For instance, a Personal Tutor focuses on individual immediate feedback or AI tutors each student, Co-designer focuses on assisting throughout the design process, and Motivator focuses on offering games and challenges. These functions fall outside the scope of collaborative content mastery required in this research context. To understand how these AI roles operate within a collaborative setting, it is imperative to first dissect the structural mechanics of the Jigsaw method itself.

B. Jigsaw Learning Method

The Jigsaw Method is a highly structured cooperative learning strategy originally developed by Elliot Aronson to facilitate efficient mastery of academic material and foster peer dependency. The fundamental mechanism of this

strategy involves dividing a central topic into sub-topics, where each student in a home group is assigned a unique segment to master. These students then convene in specialized expert groups to collaboratively synthesize their specific segment before returning to their Home Group to teach the acquired knowledge to their peers.[25] This structural design ensures that every student holds an indispensable role, the overarching success of the group depends entirely on the participation and comprehension of each individual.

To thoroughly analyze how the Jigsaw method functions, it must be examined through the lens of the 5 Basic Elements of Cooperative Learning established by Johnson and Johnson.[26] In this research, these five principles serve as the theoretical indicators to evaluate the quality of collaboration:

1. Positive Interdependence

This is the core engine of the Jigsaw method. Students are structurally linked so that one cannot succeed unless everyone succeeds. Each expert holds a unique piece of the puzzle or knowledgethat the others critically need.

2. Individual and Group Accountability

Each member is individually accountable for mastering their assigned material in the Expert Group and is collectively accountable for ensuring their Home Group members understand the entire topic.

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[25] Joel M. Moskowitz et al., "Evaluation of Jigsaw, a Cooperative Learning Technique," *Contemporary Educational Psychology* 10, no. 2 (1985): 104–12, https://doi.org/10.1016/0361-476X(85)90011-6.

[26] David W. Johnson and Roger T. Johnson, *Learning Together and Alone: Cooperative, Competitive, and Individualistic Learning*, 5th ed. (Boston: Allyn and Bacon, 1999), 70-73.

3. Promotive Interaction

Group members actively facilitate each other's learning efforts through real-time discussions, exchanging explanations, and clarifying complex concepts during the peer-teaching phase.

4. Social Skills

The method intrinsically demands the application of 21st-century transversal skills, requiring students to communicate academic concepts effectively, resolve cognitive conflicts, and construct collective understanding.

5. Group Processing

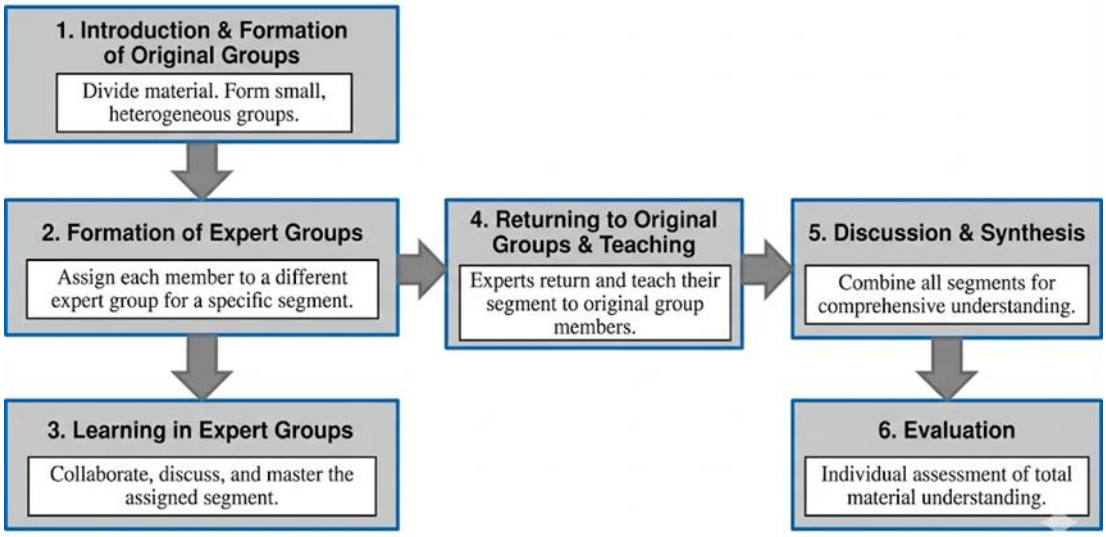
The group reflects on their collaborative process to determine which learning actions were helpful and how to improve future academic interactions.

Jigsaw serves as a natural mechanism for building crucial 21st-century skills such as collaboration, communication, and critical thinking. This method explicitly helps develop writing, speaking, and other forms of self-expression, information gathering abilities, as well as synthesis and analysis in problem-solving and critical thinking.

Additionally, Jigsaw inherently promotes collaborative learning and teamwork. This demonstrates that Jigsaw is not merely a method for delivering content but a rich platform for training the transversal skills so desperately needed in the contemporary era. Jigsaw is a cooperative learning method in which learning material is divided into several segments, and each

student becomes an expert on one segment, then teaches it to their group members. Stages of the Jigsaw Method according to Aronson & Patnoe as follow:[27]

Image 2.1 Jigsaw Learning Process



Stage 1: Introduction and Home Group Formation

a. The instructor introduces the general topic
b. Students are divided into heterogeneous home groups (4-6 people)
c. Each member of the home group is given a number/label (Expert 1, 2, 3, etc.)

Stage 2: Expert Group Formation and Learning

a. Students with the same number/topic gather to form expert groups
b. In the expert group, students focus on studying one subtopic in depth
c. They discuss, share their understanding, and prepare how to teach the material

[27] Moskowitz et al., "Evaluation of Jigsaw, a Cooperative Learning Technique."

d. Duration: Usually 1-2 meetings

Stage 3: Return to Home Group and Teaching

a. Each expert returns to their home group
b. Each expert teaches their subtopic to other members of their home group
c. Other members listen, ask questions, and learn from the expert

Stage 4: Integration and Synthesis

a. The entire home group discusses to integrate all subtopics
b. Students build a holistic understanding of the entire material
c. This can take the form of discussions, creating mind maps, or compiling summaries together

Stage 5: Assessment and Evaluation

a. Individual evaluation to ensure that each student understands all the material
b. This can take the form of a quiz, presentation, or paper

Advantages of the Jigsaw Method:

a. Increases individual accountability because everyone has a responsibility as an expert
b. Encourages positive interdependence because the success of the group depends on each expert
c. Increases active learning and peer teaching

Traditional cooperative learning theory by Aronson highlights positive interdependence as the main principle of the Jigsaw method, meaning students need each other to succeed. However, this research questions whether this

principle still works the same way when AI is involved. The study argues that the presence of advanced AI tools like ChatGPT 3.5 may shift the learning dynamic toward greater individual independence. Instead of depending on group members, students might rely more on AI as their main source of information.

Therefore, this research does not see ChatGPT only as a supportive tool, but also as something that could reduce peer interaction. As a result, students may sit together in groups, but focus more on their screens than on discussing ideas with each other.

Therefore, the addition of ChatGpt 3.5 in Jigsaw has the potential to strengthen the core elements of collaborative learning, which theoretically will positively correlate with improved academic achievement. This study will examine whether and how ChatGpt 3.5 modifies or strengthens this correlation in the context of the Qualitative Research Method course.

C. Qualitative Research Method Course

The Qualitative Research Methods (QRM) course is a core subject in the higher education curriculum. It teaches students the basic principles and practices of qualitative research. According to Creswell and Poth,[28] this course helps students understand how to properly conduct qualitative research. While, according to Denzin & Lincoln,[29] it introduces the idea that social reality is subjective, which is different from the number-focused quantitative method. In

[28] John W. Creswell and Cheryl N. Poth, *Qualitative Inquiry and Research Design: Choosing Among Five Approaches*, 4th ed. (Thousand Oaks: SAGE Publications, 2018), 20-21.

[29] Norman K. Denzin and Yvonna S. Lincoln, *The SAGE Handbook of Qualitative Research*, 4th ed. (Thousand Oaks: SAGE Publications, 2011), 3

this course, students learn to analyze non-numerical data, such as interviews and observations, to prepare for their final thesis.

This course was chosen for this research because the material is highly complex and theoretical. Students who are new to qualitative research often face fundamental challenges.[30] They usually struggle to understand abstract concepts, analyze data, and differentiate between various qualitative approaches like Phenomenology and Case Study. Because the material is very demanding, this course provides an ideal setting to observe how students learn and how they use external tools, like artificial intelligence, to help them study.

Because the QRM course is difficult, traditional teacher-centered learning is often not enough. Therefore, this course strongly needs an active learning method like Jigsaw. Theories from Vygotsky and Creswell explain that students understand complex concepts much better when they discuss them with their peers.[31] The Jigsaw method divides the difficult qualitative topics into smaller, manageable parts. It requires students to master a specific topic in an Expert Group and then teach it to their friends in a Home Group. This teamwork makes hard theories easier to digest.

The primary objective of combining the QRM course and the Jigsaw method is to build students' understanding through collaborative peer-teaching. However, this research seeks to evaluate how the intervention of ChatGPT 3.5 affects this established process. By observing students in this demanding course,

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[30] John W. Creswell and J. David Creswell, *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*, 5th ed. (Thousand Oaks: SAGE Publications, 2018), 253.

[31] Lev Vygotsky, *Mind in Society: The Development of Higher Psychological Processes* (Cambridge: Harvard University Press, 1978), 86.

the researcher aims to discover whether ChatGPT functions as a helpful tool that supports students in understanding the material to teach their peers, or if it fosters passive reliance that reduces their critical thinking. Ultimately, this context will reveal whether using AI strengthens student learning or diminishes the collaborative teamwork required by the Jigsaw method.

D. Review on Related Findings

A review of the relevant literature on the role of ChatGpt 3.5 in the implementation of collaborative learning techniques, particularly the Jigsaw method, reveals a rapidly evolving research landscape with diverse findings. This section aims to outline the contributions of previous research, while systematically highlighting the gaps that this study will fill.

A systematic review by Kovari (2025) entitled *A Systematic Review of AI-Powered Collaborative Learning in Higher Education: Trends and Outcomes from the Last Decade* on AI-powered collaborative learning in higher education found that AI has great potential for personalizing learning, increasing student engagement, and improving learning outcomes. This review identified various core AI components used, including predictive analytics, recommendation systems, NLP and chatbots, intelligent tutoring systems, and emotion and engagement tracking. While many benefits exist, the review also highlighted challenges and ethical considerations, such as the underdeveloped critical evaluation skills among students and the need for AI literacy programs. This

suggests that while AI can enhance collaboration, it also introduces new pedagogical complexities.[32]

Similarly, Zheng, Zhong, and Niu (2022) entitled *Building a Triadic Model of Technology , Motivation , and Engagement : A Mixed-Methods Study of AI Teaching Assistants in Design Theory Education* demonstrated that an AI-based personalized feedback approach (using the BERT deep neural network model) significantly improves collaborative knowledge building and positive emotions among students in online learning environments. Crucially, this personalized feedback did not significantly increase students' cognitive load. This finding supports the idea that AI can provide effective scaffolding in collaborative settings without overwhelming learners.[33]

A systematic review by Tan, Lee, and Lee (2022) entitled *A Systematic Review of Artificial Intelligence Techniques for Collaborative Learning over the Past Two Decades* analyzed 41 journal articles on AI in collaborative learning, identifying two main foci: learning outcomes and social interactions. They categorized AI uses into improving learning outcomes (collective group performance and content mastery) and analyzing social interactions (e.g., sentiment, discourse patterns, student behaviors). The authors mapped these to various AI techniques, such as NLP and deep learning for analyzing discussion data, and clustering and agent techniques for grouping and scaffolding. While

[32] Kovari, "A Systematic Review of CHATGPT 3.5-Powered Collaborative Learning in Higher Education: Trends and Outcomes from the Last Decade."

[33] Anlan Wang, "Building a Triadic Model of Technology , Motivation , and Engagement : A Mixed-Methods Study of CHATGPT 3.5 Teaching Assistants in Design Theory Education," no. July (2025): 1–21, https://doi.org/10.3389/fpsyg.2025.1624182.

comprehensive, this review primarily focuses on AI *techniques* and their *general applications* in collaborative settings, rather than the specific, student-initiated integration within a predefined cooperative structure like Jigsaw.[34]

Carruana Martín, Alario-Hoyos, and Delgado Kloos (2022) entitled *Smart Groups: A System to Orchestrate Collaboration in Hybrid Learning Environments. A Simulation Study* discussed the Smart Groups system, designed to orchestrate collaboration in hybrid environments, including recommendations for collaborative learning patterns like Jigsaw. Their simulation study found good usefulness and usability, with the system capable of automating group formation and supporting student communication. This research highlights AI's potential in *managing* collaborative activities, but again, it focuses on a system *provided* to orchestrate collaboration, not on students' autonomous choices to integrate external AI tools.[35]

Furthermore, Research by Adedoyin & Altinay (2023) entitled *"Effects of Jigsaw Learning Strategy Integrated with Computer Simulations on Gender Differences in Students' Achievement and Attitude in Learning Chemistry* , presented in a study on the impact of the Jigsaw Learning Strategy integrated with computer simulation (JLSICS) on chemistry learning, shows that this approach significantly improves students' academic performance and attitudes compared to conventional teaching methods. Although this study integrates

[34] Tan, Lee, and Lee, "A Systematic Review of Artificial Intelligence Techniques for Collaborative Learning over the Past Two Decades."

[35] Adrián Carruana Martín, Carlos Alario-Hoyos, and Carlos Delgado Kloos, "Smart Groups: A System to Orchestrate Collaboration in Hybrid Learning Environments. A Simulation Study," *Australasian Journal of Educational Technology* 38, no. 6 (2022): 150–68, https://doi.org/10.14742/ajet.6776.

technology (computer simulation) with Jigsaw, the focus is on the impact of the simulation provided as part of the strategy, rather than on the initiation and specific steps of students' independent use of generative AI or other AI tools.[36]

Despite these extensive contributions, a significant gap remains. Most existing literature views AI either as a performance enhancer (Kovari/Zheng) or a management system (Tan/Carruana). There is a scarcity of research that addresses the bottom-up phenomenon: the unregulated, student-initiated integration of Generative AI like ChatGPT 3.5 within a structured cooperative method like Jigsaw.

This research aims to address this specific gap. Unlike previous studies that focus on system-driven AI use, this study examines student-driven usage. It argues that when students independently use ChatGPT in the Jigsaw method without specific instructions, a new learning dynamic emerges. In particular, it highlights the tension between individual efficiency and the possible weakening of social interdependence within the group. Therefore, this study shifts the focus from how AI supports teachers in managing groups to how students' independent use of AI can reshape the collaborative learning process itself.

[36] Shimelis Kebede Kekeba, "Effects of Jigsaw Learning Strategy Integrated with Computer Simulations on Gender Differences in Students' Achievement and Attitude in Learning Chemistry," *Cogent Education* 12, no. 1 (2025), https://doi.org/10.1080/2331186X.2024.2346041.

CHAPTER III

RESEARCH METHODOLOGY

This chapter presents the research methodology employed in this research, outlining the research design, subject of the research, techniques for collecting data, instruments of the research, and techniques for analyzing the data. This methodological framework provides a systematic approach to investigating the student-initiated integration of ChatGPT 3.5 within the Jigsaw Learning Method in the Qualitative Research Method course.

A. Kind of the Research

This research uses a qualitative approach to understand how students experience and interpret the use of AI in the classroom. Following Creswell, this study is considered qualitative because it explores the real situation of AI integration in a natural setting and focuses on verbal data, not numbers. The researcher aims to understand students' experiences, interactions, and independent decisions when using ChatGPT 3.5. For this reason, the study emphasizes interpretation rather than statistical measurement.

This research applies a Case Study design. According to Yin[37], a case study examines a current phenomenon in depth within its real-life context. This design fits the present study for three main reasons. First, bounded system where the case is clearly limited by time and place. It focuses only on sixth-semester

[37] Robert K. Yin, *Case Study Research and Applications: Design and Methods*, 6th ed. (Los Angeles: Sage Publications, 2018).

students of the English Tadris Study Program at IAIN Curup in the 2025 academic year, specifically in the Qualitative Research Method course. The study does not aim to generalize the findings to other universities or courses.

Second, real-life and current phenomenon where the research examines an ongoing practice, students' own initiative to use ChatGPT 3.5 during the Jigsaw learning process. The phenomenon is observed in its natural classroom setting without experimental manipulation.

Third, in-depth data collection by the researcher gathers data from several sources, including interviews with students and the lecturer, as well as document analysis. This helps build a comprehensive understanding of the case. Therefore, the Case Study design is chosen to provide a detailed explanation of how and why students use ChatGPT 3.5 in the Jigsaw method, and how this use influences cooperative learning within this specific academic context.

To achieve the research objectives within this case study, the researcher applied data source triangulation. Two main data collection techniques were used across three different sources. First, semi-structured interviews were conducted with students to understand the steps of the Jigsaw learning process and the roles of ChatGPT 3.5 in classroom activities. Second, an interview with the course lecturer was carried out to confirm the instructional context and to validate the information provided by the students. Third, the course syllabus was analyzed to ensure that the implementation of the Jigsaw method was aligned with the planned structure.

All collected data were then analyzed using the Interactive Model of data analysis proposed by Miles, Huberman, and Saldaña, which consists of data condensation, data display, and conclusion drawing. This process helped the researcher develop comprehensive and credible findings.

B. Subject of the Research

In this study, the researcher used purposive sampling, a qualitative technique in which participants are selected based on specific criteria related to the research focus rather than randomly.[38] The researcher chose this technique because it helps select the most relevant participants, allowing the study to collect focused and in-depth data needed to answer the research objectives.

The population consisted of 58 sixth-semester students of the English Tadris Study Program/Cohort 2022 who took the Qualitative Research Method course in 2025. A preliminary survey was conducted online and offline to identify AI usage, and 30 students agreed to participate. After filtering based on the use of ChatGPT 3.5, 4 students who mainly used other AI platforms were excluded, leaving 26 eligible students.

However, in qualitative research, it is not necessary to interview the entire eligible pool. Instead, the researcher conducted the interviews progressively based on the principle of data saturation, a point in data collection where new data no longer brings additional insights, and no new themes or codes

[38] John W. Creswell and J. David Creswell, *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*, 5th ed. (Los Angeles: SAGE Publications, 2018), 186.

emerge to answer the research questions.[39] The researcher interviewed the eligible students systematically, and by the time the 14th participant was interviewed, no new conceptual information or emerging patterns appeared. Since data saturation had been achieved, the researcher concluded the student sampling at exactly 14 participants. Furthermore, for the purpose of data source triangulation, the researcher also included 1 course lecturer as a research subject.

To ensure the validity of the purposive sampling, the final subjects were strictly selected based on the following criteria:

1. Students belonging to the academic year cohort of 2022.
2. Students who actively took and completed the Qualitative Research Method course in the sixth semester of 2025.
3. Students who explicitly experienced and utilized the ChatGPT 3.5 tool during the implementation of the Jigsaw learning technique in the aforementioned course.
4. The specific lecturer who taught the Qualitative Research Method course in that semester, implemented the Jigsaw technique, and permitted or observed the integration of ChatGPT 3.5 within the class.

These criteria were determined based on the needs of the study. The 2022 cohort was selected because they took the 2025 Qualitative Research Method course when the use of ChatGPT 3.5 in academic assignments had become common. Including the course lecturer also helped provide a clear understanding

[39] Patricia I Fusch and Lawrence R Ness, "Are We There Yet ? Data Saturation in Qualitative Research Are We There Yet ? Data Saturation in Qualitative Research" 20, no. 9 (2015): 1408–16.

of the teaching goals and how the Jigsaw method and ChatGPT 3.5 were implemented, which strengthened the credibility of the study.

C. Technique of Collecting Data

The most important part of supporting and proving the research is the empirical data. This research intends to explore the involvement of ChatGPT 3.5 in the implementation of the Jigsaw learning technique. To gain the best interpretation of the data and enhance credibility, this study utilized 2 primary data collection techniques to gather information from 3 data sources such as students, lecturer, and institutional document. Those techniques are described as follows:

1. Interview

In this study, the researcher employed semi-structured interviews as the primary technique to gather in-depth data regarding students' experiences and the lecturer's pedagogical perspective.[40] Following the principles of case study research, instead of relying on a rigid question-and-answer format, the researcher conducted the interviews as guided conversations to allow participants to express their ideas freely and naturally.[41] The interview process was divided into two distinct categories:

a. Interviews with Students

The researcher conducted in-depth interviews with the 14 selected students, with each session lasting approximately 40 minutes. To ensure a

[40] Norman K. Denzin and Yvonna S. Lincoln, *The SAGE Handbook of Qualitative Research*, 5th ed. (Thousand Oaks: SAGE Publications, 2018), 990.

[41] Robert K. Yin, *Case Study Research and Applications: Design and Methods*, 6th ed. (Los Angeles: SAGE Publications, 2018), 118.

comprehensive answer to the research problems, the interview guideline was structurally divided into two distinct sessions:

1) Session 1 (Addressing Research Question 1)

In this first section, the researcher posed questions specifically designed to map the step-by-step involvement of ChatGPT 3.5. These questions were constructed based on the 4 Steps of Generative AI Integration framework proposed by Sabzalieva et.al and Dikti. The data collected from this session focused on the chronological actions students took during the Jigsaw phases.

2) Session 2 (Addressing Research Question 2)

In the second section, the researcher posed questions aimed at exploring the pedagogical roles of ChatGPT 3.5. These questions were developed based on the classification framework by Mike Sharples and Sabzalieva et.al to identify specific roles such as Possibility Engine, Socratic Opponent, or Study Buddy. The data collected focused on the students' perceived cognitive and collaborative impacts. The responses gathered from both sessions were subsequently analyzed using the Interactive Model of Qualitative Data Analysis to identify the specific integration patterns and dominant AI roles.

b. Interview with the Course Lecturer

In addition to student interviews, the researcher conducted a separate 50-minute interview session with the Qualitative Research Method course lecturer. Based on the validated pre-interview guideline,

this session was conducted to verify the research context and triangulate the findings. The conversation focused on three key aspects.

First, confirming the concrete implementation of the Jigsaw method such as structure, topics, expert group division. Second, understanding the lecturer's official policy and stance regarding AI tools like ChatGPT in the classroom, and last gathering the lecturer's observations on changes in student collaborative behavior. All interviews were audio-recorded with the participants' consent to ensure data accuracy. The recordings were then transcribed verbatim to facilitate the coding and analysis process.

2. Document Analysis

Document analysis is a methodical and systematic procedure for evaluating written information, including printed and electronic materials.[42] Comparing document analysis to survey data collection, one of its primary benefits is its non-intrusiveness, as documents can be reviewed without affecting the setting or participants.

In its implementation, the researcher utilized the primary document: the Course Syllabus for Qualitative Research Method (TBI243, Semester 6, 2025). The purpose of using the documentation checklist is to verify the planned instructional design of the Jigsaw Learning method and establish the research context, rather than assessing direct student implications. This

[42] Glenn A. Bowen, "Document Analysis as a Qualitative Research Method," *Qualitative Research Journal* 9, no. 2 (2009): 27.

document confirms whether the Jigsaw learning method was structurally planned for at least 8 of the 16 meetings in the semester. The systematic documentation analysis focused on five critical areas:

a. Content Divisibility: Verification that course topics are structured to support Jigsaw segmentation
b. Collaborative Learning Alignment: Identification of explicit or implicit references to collaborative learning approaches.
c. Assessment Structure for Jigsaw: Assessment design reflects individual accountability and positive interdependence.
d. Implementation Duration: Adequate time allocated for at least one full Jigsaw cycle.
e. Technology and AI integration Readiness: Verification that the course materials or syllabus allow, encourage, or do not explicitly restrict technology-supported learning.

A systematic documentation checklist was applied to evaluate whether the syllabus demonstrates structural alignment with Jigsaw Learning principles, as established by Aronson's cooperative learning frameworks.

D. Instrument of the Research

The data collection will be guided by two main instruments, which are directly derived from the theoretical framework presented in Chapter II.

1. Interview Guidance

Semi-structured interviews will allow the researcher to explore in depth the perceptions, experiences, and understanding of the research subjects

regarding ChatGPT 3.5 involvement in the Jigsaw method. Two separate interview guides were developed: one for the course lecturer and one for the student participants. The questions are open-ended and structured based on theoretical indicators relevant to each research question.

To verify the instructional context and validate the student-reported phenomena, the researcher formulated an interview guide for the lecturer based on the Collaborative Learning principles by Johnson & Johnson and Aronson & Patnoe.

In the first interview, the researcher formulated questions for the semi-structured interview based on summarizing key concepts from the flowchart of GenAI Usage by the Indonesian Ministry of Education, Culture, Research, and Technology or Dikti[43] and Sabzalieva, Valentini[44] combined with Jigsaw learning phases in order to find step-by step ChatGPT usage. Meanwhile, to analyze the specific roles adopted by ChatGPT, the researcher adapted the classification framework established by Mike Sharples[45] and Sabzalieva, Valentini[46] published by United Nations Educational, Scientific and Cultural Organization IESALC.

To clarify the logic behind the instrument in Table 3.1 below, the questions are structured chronologically to follow the students' actual learning

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[43] Direktorat Pembelajaran et al., "PANDUAN PENGGUNAAN GENERATIVE ARTIFICIAL INTELLIGENCE (GenAI)," 2024.

[44] Emma Sabzalieva and Arianna Valentini, *ChatGPT and Artificial Intelligence in Higher Education: Quick Start Guide* (Paris: UNESCO, 2023), 5-6

[45] Sharples and Sharples, "Towards Social Generative AI for Education : Theory , Practices and Ethics and Ethics ABSTRACT."

[46] Emma Sabzalieva and Arianna Valentini, *ChatGPT and Artificial Intelligence in Higher Education: Quick Start Guide* (Paris: UNESCO, 2023), 9.

journey. This blueprint does not merely combine different theories; it tracks the real-time process of the students.

First, Steps 1 to 4 from Questions 1 to 13 occur during the Expert Group phase. In this stage, the questions specifically focus on how students independently operate ChatGPT, starting from typing the initial prompt to integrating the AI's answers into their notes.

Second, the process chronologically moves to the Teaching and Reflection Phases from Questions 14 to 18. These final phases represent the unique characteristics of the Jigsaw method that do not exist in other cooperative learning models. These specific questions are designed to investigate the consequence of the AI usage: how students bring the information they gathered from ChatGPT and teach it to their peers in the Home Group. Therefore, this instrument successfully captures the complete timeline from human-AI interaction to human-human interaction.

Table 3. 1 Blueprint Interview: Step-by-Step ChatGPT Involvement in Jigsaw Learning

NO	THEORY	STEPS	INDICATORS	QUESTIONS
1	Direktorat Jenderal Pendidikan Tinggi, Riset, dan Teknologi. *"Buku Panduan Penggunaan Generative AI pada Pembelajaran di Perguruan Tinggi"*. Kementerian Pendidikan, Kebudayaan, Riset, dan Teknologi. (2023). & Emma Sabzalieva and Arianna Valentini. *"ChatGPT and Artificial Intelligence in Higher Education: Quick Start Guide"*. UNESCO. (2023).	PLANNING & PROMPT CONSTRUCTION	1. Voluntary GenAI use 2. Goal setting & prompt planning	1. During your work on the Jigsaw assignment, did you independently decide to use ChatGPT to support your understanding of your expert subtopic? 2. Which version of ChatGPT did you use, and why did you choose that version for this course task? 3. When you entered your expert group, what specific aspect of your assigned subtopic motivated you to consult ChatGPT? 4. What learning goal did you hope ChatGPT would help you achieve in preparing to teach your expert portion of the Jigsaw? 5. How did you formulate your initial prompt to ChatGPT so that it aligned with

				the expectations of the Qualitative Research Method course?
		INTERACTION & ANSWER GENERATION	3. Interaction and knowledge construction	6. Can you describe the sequence of steps you took when interacting with ChatGPT to study your expert subtopic? 7. What types of questions or clarifications did you ask ChatGPT to deepen your understanding of qualitative concepts such as themes, codes, research paradigms, or sampling techniques? 8. How did you assess whether ChatGPT's explanations were sufficient for you to perform your role as an "expert" in the Jigsaw group?
		CRITIQUE & REVISION	4. Critical evaluation and revision	9. How did you evaluate whether the information provided by ChatGPT was accurate and aligned with the Qualitative Research Method materials taught

				in class? 10. Did you compare ChatGPT's responses with textbooks, lecture slides, or other required readings? If yes, how did this comparison shape your understanding? 11. Can you describe a moment when you had to ask ChatGPT a follow-up question because the initial answer was unclear, incomplete, or inconsistent with course concepts?
		VERIFICATION, INTEGRATION, AND ACCOUNTABILITY	5. Integration and knowledge transformation	12. How did you convert the information generated by ChatGPT into a form suitable for teaching your home group? 13. In what ways did you integrate ChatGPT's explanations with other course materials when preparing your expert teaching session?
	Elliot Aronson and Shelley Patnoe.	TEACHING PHASE JIGSAW	6. Knowledge transfer and responsive use	14. How did ChatGPT-supported knowledge influence the way

	"Cooperation in the Classroom: The Jigsaw Method". Pinter & Martin. (2011).			you explained your subtopic to your home group members? 15. If your home group asked questions you found challenging, did you consult ChatGPT again for clarification? If so, how did this affect the group discussion?
	David W. Johnson and Roger T. Johnson. *"Learning Together and Alone: Cooperative, Competitive, and Individualistic Learning"*. Allyn and Bacon. (1999).	REFLECTION PHASE JIGSAW	7. Learning reflection and future strategy	16. Looking back at the entire Jigsaw process, how did using ChatGPT influence your overall understanding of qualitative research methods? 17. What aspects of ChatGPT use were most helpful or least helpful in completing your expert role and supporting your home group? 18. If you were to participate in another Jigsaw assignment, how would you adjust your use of ChatGPT to improve your learning process?

Table 3.2 - Blueprint Interview: Roles of ChatGPT on Learning Process in Jigsaw

NO	THEORY	ROLES	SUB-INDICATOR	QUESTIONS
1	Mike Sharples. *"Towards social generative AI for education: theory, practices and ethics"*. Learning: Research and Practice. (2022). & Emma Sabzalieva and Arianna Valentini. *"ChatGPT and Artificial Intelligence in Higher Education: Quick Start Guide"*. UNESCO. (2023).	1. Socratic Opponent	1. Critical Challenge and Deep Reasoning	1. Did ChatGPT push you to think more critically about abstract concepts? Provide a specific example. 2. During your Expert Group discussion, did ChatGPT ever challenge your initial interpretation of qualitative vs. quantitative questioning in a way that deepened your reasoning?
		2. Guide on the Side	2. Scaffolding Clarification	3. When trying to understand the idea that "the researcher is the key instrument," how did ChatGPT's explanations help you grasp the concept clearly enough? 4. Did ChatGPT help you distinguish inductive reasoning from deductive

				reasoning through its "guiding" explanations? How did you use this while teaching your Home Group?
		3. Exploratorium	3. Exploration and Concept Expansion	5. How did ChatGPT allow you to explore multiple definitions, examples, or author perspectives on your assigned qualitative approach? 6. After exploring concepts with ChatGPT, were you able to retain and explain them weeks later without assistance? How did this exploration influence your long-term understanding?
		4. Collaboration Coach	4. Group Coordination and Synthesis Support	7. During the Expert Group discussions, how did ChatGPT help your group structure your subtopic, divide tasks, or synthesize key ideas? 8. Did ChatGPT change how

				dependent you felt on your group members for understanding or organizing your expert material? Explain how. 9. Did ChatGPT help your Expert Group prepare a clearer, more structured explanation before returning to the Home Group? How did it influence your peer-teaching quality?
		5. Possibility Engine	5. Alternative Phrasings and Expression	10. Did ChatGPT help you rephrase methodological distinctions into clearer explanations for your peers? 11. When responding to difficult questions from Home Group members, did the alternative framings provided by ChatGPT help you explain concepts more confidently?
		6. Study Buddy	6. Self-Assessment	12. Were there moments where

			and Readiness Check	ChatGPT helped you realize you didn't fully understand a concept before teaching it, prompting further review? 13. After using ChatGPT, do you feel more capable of applying qualitative concepts independently, or do you still rely on it for reassurance?

Table 3. 3 Blueprint of lecturer interview:

Verification of Jigsaw Learning Method Implementation and ChatGPT 3.5 Policy

Focus Area	**Theoretical Basis**	**Questions**
Opening Narrative	Collaborative Learning (Johnson & Johnson, 2009; Aronson & Patnoe, 2011)	1. To begin with, could you tell me in general terms how you teach the Qualitative Research Methods course this semester? For example, the teaching methods you use, how you structure the class, and anything you think is important for me to know.
Specific Focus on Jigsaw	Collaborative Learning (Johnson & Johnson, 2009; Aronson & Patnoe, 2011)	2. In this course, do you use the **Jigsaw** method or a similar collaborative method where students are divided into small groups, each group studies a different topic, and then they teach each other? If yes, could you tell me more about how you apply it in this class?

Process Description of Jigsaw	Collaborative Learning (Johnson & Johnson, 2009; Aronson & Patnoe, 2011)	3. Could you explain in detail, from start to finish, how the stages of this collaborative learning/Jigsaw method work in your class? Starting from the first meeting when Jigsaw is introduced, the formation of "expert" and "home" groups, up to the final evaluation.
Content & Topics	Collaborative Learning (Johnson & Johnson, 2009; Aronson & Patnoe, 2011)	4. What topics in Qualitative Research Methods did you assign to the "expert" groups? How did you decide the division of these topics among the groups?
Learning Resources and Expectations		5. When students study in their expert groups, what learning resources do you recommend or expect them to use? Do you explicitly mention or not mention AI tools in these expectations?
Technology Landscape		6. In this digital age, students inevitably use various technologies for learning. In this course, what have you observed about students' use of technology when working in their Jigsaw groups?
AI Tools Awareness		7. Recently, AI tools such as ChatGPT have become popular among students. What is your experience with this in this course? Have you observed, heard, or suspected that students use such tools while working on course tasks?
Policy and Stance		8. What is your policy or stance on the use of AI tools such as ChatGPT in this course? Is it allowed, restricted, or discouraged? Could you explain the reasons behind this policy?
Perceived Quality and Changes		9. While teaching with the Jigsaw method, have you noticed any changes in students' understanding, participation, or performance in recent semesters, especially in this era of AI tools? If yes, what kinds of changes have you observed?

2. Documentation Checklist

Document analysis is a systematic procedure for reviewing and evaluating printed and electronic materials. It is particularly advantageous due to its non-intrusive nature, as documents can be reviewed without affecting the setting or participants.

In its implementation, the primary document used is the Course Syllabus for Qualitative Research Method (TBI243, Semester 6, 2025). The purpose of this documentation checklist is to verify the planned instructional design of the Jigsaw Learning method and establish the research context. A systematic documentation checklist was applied to evaluate whether the syllabus demonstrates structural alignment with Jigsaw Learning principles, focusing on five critical areas.

Table 3. 4 Blueprint Documentation Checklist:

Jigsaw Learning Implementation in the Syllabus of Qualitative Research Method Course

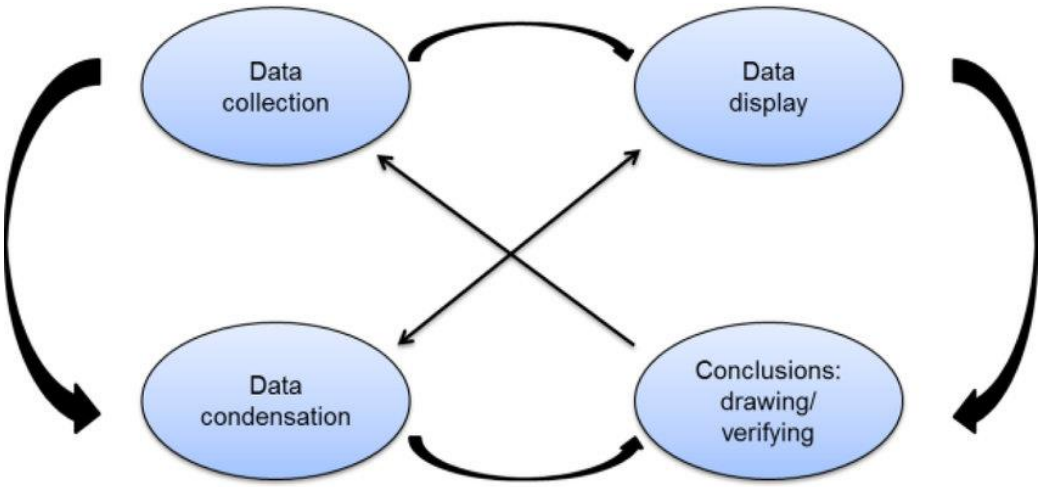
NO	CRITERION	INDICATORS	EVIDENCE TO VERIFY	CHECK (✓)	NOTES/FINDINGS
1	**Content Divisibility**	Course content can be divided into expert-group segments	Presence of clearly separated topics across ≥ 8 instructional sessions (excluding introduction, exams, and final project)		List eligible weeks/topics

2	**Collaborative Learning Alignment**	Syllabus explicitly signals collaborative/cooperative pedagogies	Mentions of "Collaborative Learning," "Cooperative Learning," "Group Learning," or "Jigsaw Method" in the pedagogical approach section		Direct quote(s) from syllabus:
3	**Assessment Structure for Jigsaw**	Assessment design reflects individual accountability and positive interdependence	Grading components include identifiable percentages for participation, group work, and individual tasks/assignments		Detailed breakdown:
4	**Implementation Duration**	Adequate time allocated for at least one full Jigsaw cycle	Minimum of 8 weeks containing content suitable for expert/home group rotation		Total eligible weeks: ___/16
5	**Technology and AI Integration Readiness**	Course materials allow or encourage technology-supported learning	Syllabus mentions technology use, online platforms, digital resources, OR does not explicitly restrict AI/ChatGPT use		Relevant statements/phrases:

E. Technique of Data Analysis

To analyze the data, the researcher employed the interactive model proposed by Miles, Huberman, and Saldaña.[47] This model consists of three concurrent flows of activity: Data Condensation, Data Display, and Conclusion Drawing/Verification. This method was chosen because it allows the researcher to continuously refine the analysis as new data emerges, ensuring that the findings regarding steps and the roles of ChatGPT 3.5 in the Jigsaw method are accurate and deeply rooted in the context of the Qualitative Research Method course.

Figure 3.1 Miles, Huberman, & Saldana's Interactive Model of Data Analysis



[47] Miles, M. B., & Huberman, A. M. (1994). *Qualitative Data Analysis: An Expanded Sourcebook (2nd ed.).* Sage Publications.

1. Data Collection

Data collection is the first procedure that researcher did in order to conduct this research. This research data are 14 interview data transcripts, 1 lecturer interview data, and document checklist result of syllabus from Qualitative Research Method course. Researcher transcribed all of interview data and did coding data in order to simplifying the finding.

2. Data Condensation

Data condensation refers to the process of selecting, focusing, simplifying, abstracting, and transforming the data that appear in the full corpus of transcripts. First, the researcher transcribed the interviews from the 14 undergraduate students and one lecturer. Information unrelated to AI usage or the Jigsaw process was discarded to maintain analytical focus.

Second, the researcher applied deductive coding based on the the operational framework of ChatGPT and the Sabzalieva et.al AI roles framework. To ensure data traceability and capture both confirming and disconfirming evidence, the researcher established a highly systematic Coding System. The code was formulated using the participant's initials followed by the chronological number of their statement:

[Participant_Initials][Utterance_Number]

For example, a data unit coded as LA1 refers to the first relevant statement made by Laras Ariani (LA).

Crucially, the researcher also employed Negative Coding by utilizing specific symbols:

1. (-) to indicate data that contradicts or fails to meet the theoretical framework.

Table 3.5 - Coding System and Abbreviations

Category	Indicator / Meaning	Abbreviation Code
Participant Initials	Laras Ariani, Stefani Putri, Gita Cahyani, etc.	**LA, SP, GC...** (14 initials)
	Mr. Guci (Lecturer)	**MRG**
Preliminary Codes	Student Initiated (Voluntary Adoption)	**SI**
	ChatGPT 3.5 Version Used	**CG 3.5**
RQ1: Jigsaw & ChatGPT Steps	Planning and Prompt Construction	**S1**
	Interaction and Answer Generation	**S2**
	Critique and Revision	**S3**
	Verification, Integration, Accountability	**S4**
	Teaching Phase (Knowledge Transfer)	**TP**
	Reflection Phase (Assessment)	**RP**
RQ2: ChatGPT Roles	Socratic Opponent	**SO**
	Guide on the Side	**GOS**
	Exploratorium	**EP**
	Collaboration Coach	**CC**
	Possibility Engine	**PE**
	Study Buddy	**SB**
Analytical Symbols	Indicates the *absence* or *failure* of a theory/role	**(-)** *(e.g., SO (-))*

3. Data Display

After the data were condensed and tabulated, the analyzed data were organized into a clear written explanation. This representation highlighted the main findings related to the integration of ChatGPT 3.5 in the Jigsaw learning process, particularly focusing on students' patterns of use, the identified pedagogical roles of ChatGPT, and the critical gaps found in evaluation, interaction, and dependency during the learning activities in the Qualitative Research Method course.

4. Conclusion Drawing

After the data were displayed, the findings were summarized to provide a concise overview of the analysis results. The information was organized into tables to classify students' patterns of ChatGPT 3.5 use, the identified pedagogical roles, and the critical gaps observed during the Jigsaw learning process. By applying this research methodology, the study aims to provide an in-depth understanding of how step by step ChatGPT 3.5 usage in the Qualitative Research Method course during Jigsaw, as well as the pedagogical roles of its integration in Jigsaw learning.

CHAPTER IV

FINDING & DISCUSSION

This section presents the findings of the study conducted at the English Tadris Study Program, IAIN Curup. The analysis focuses on two main aspects: the step-by-step integration of ChatGPT 3.5 into the Jigsaw learning method and its specific pedagogical roles within the Qualitative Research course. Based on data from interviews and document analysis, this study reveals insights that differ from previous research findings. These points are detailed in the following sections.

A. FINDING

This study involved 15 participants from the English Tadris Study Program at IAIN Curup, consisting of 14 seventh-semester students and 1 lecturer. The students had completed the Qualitative Research Method course in the previous semester, in which the Jigsaw method integrated with ChatGPT 3.5 was implemented, while the lecturer was included to provide a pedagogical perspective and support data triangulation.

Data were collected through semi-structured interviews and document analysis. The interviews explored how ChatGPT 3.5 was integrated into the Jigsaw learning process, while the syllabus (RPS) analysis verified the formal implementation of the Jigsaw method by examining learning objectives, peer-teaching activities, and assessment criteria.

1. **The Step-by-Step Involvement of ChatGPT 3.5 in Jigsaw Learning Method**

This section addresses the first research question by describing the specific steps through which students integrated ChatGPT 3.5 into the Jigsaw learning method in the Qualitative Research Method course. The data were collected through semi-structured interviews with seventh-semester students who had completed the course in the sixth semester. These participants were selected based on their active participation in Jigsaw activities and their use of AI tools during the learning process.

To ensure the credibility and depth of the findings through triangulation, the researcher also conducted an interview with the lecturer responsible for the Qualitative Research Method course. This step was intended to corroborate students' perspectives with the lecturer's observations regarding the implementation of AI and the Jigsaw method in the classroom.

The interview questions were carefully developed based on the key concepts of the official guidelines established by *the Indonesian Ministry of Education, Culture, Research, and Technology or Dikti,* and the foundational guide on *ChatGPT and AI in Higher Education* authored by Sabzalieva and Valentini published by UNESCO and the cooperative learning stages of Jigsaw Theory proposed by Aronson.

It is important to note that this section focuses specifically on describing the process of ChatGPT integration rather than evaluating its effectiveness. The analysis emphasizes how ChatGPT was used across

different learning stages, while the pedagogical roles emerging from these interactions are discussed in the following section.

Table 4. 4 Finding Steps of Use ChatGPT 3.5 in Jigsaw

NO	STEPS	INDICATORS	STUDENTS	DESCRIPTIONS
1.	Planning and Prompt Construction	1. Voluntary Adoption 2. Tool Selection 3. Planning 4. Prompt Construction	14 students	All students voluntarily planned specific prompts to prepare for group discussions.
2.	Interaction and Answer Generation	1. Interaction 2. Knowledge Construction	14 students	All students actively interacted with the ChatGPT to construct their knowledge.
3.	Critique and Revision	1. Critical Evaluation 2. Revision	6 students	Only 6 students critically evaluated and revised the ChatGPT's answers.
4.	Integration	1. Integration 2. Knowledge Transormation	11 students	11 students successfully integrated and rewrote the AI's answers in their own words.
5.	Teaching Phase	1. Knowledge Transfer 2. Responsive Use	11 students	11 students transferred the AI-supported knowledge to teach their peers.
6.	Reflection Phase	1. Learning Reflection 2. Future Strategy	7 students	Only 7 students reflected on their AI use to formulate future strategies.

Based on the table above, the findings are explained in the following phases:

a. Planning and Prompt Construction

In the Planning and Prompt Construction stage, all students demonstrated voluntary adoption of ChatGPT 3.5, indicating that the tool was widely accepted within the Jigsaw learning process. Most students were actively involved in tool selection, planning their learning approach, and constructing prompts aligned with their assigned subtopics. This shows that AI use was intentional and structured rather than incidental, functioning as a preparatory cognitive support before entering collaborative discussion.

b. Interaction & Answer Generation

During the Interaction and Answer Generation stage, all students engaged directly with ChatGPT 3.5 to obtain explanations related to qualitative research materials. Most students demonstrated active interaction by asking follow-up questions and using the responses to support knowledge construction. This indicates that AI functioned as an interactive learning partner rather than merely a source of ready-made answers.

c. Critique & Revision

In the Critique and Revision stage, only a few students conducted critical evaluation of AI-generated responses by comparing them with lecture materials or academic references. Similarly, a minority of students

revised or refined the responses before using them in group discussions. This suggests that higher-order critical engagement with AI outputs was present but not equally demonstrated by all participants.

d. Integration

In the Integration stage, most students incorporated ChatGPT-generated information into their Jigsaw discussions. They combined AI responses with peer explanations and transformed the information into their own academic language. This indicates that knowledge was reconstructed collaboratively rather than copied directly from the AI output.

e. Teaching Phase

During the Teaching Phase, as emphasized in the Jigsaw model developed by Elliot Aronson, most students transferred AI-supported knowledge to their home groups. However, only a few students demonstrated responsive use of ChatGPT when addressing spontaneous peer questions. This suggests that AI was primarily utilized during preparation rather than in real-time instructional interaction.

7. Reflection Phase

In the Reflection Phase, only half of the students demonstrated meaningful reflection by recognizing both the strengths and limitations of ChatGPT and expressing intentions to use it more strategically in future tasks. The other half, however, showed limited reflection, as they planned to continue using ChatGPT in the same way without clear improvement

strategies. This indicates that while students are aware of ChatGPT's supportive role, their metacognitive development and critical awareness of its use remain uneven.

In conclusion, this study was not simply intended to describe the operational steps of using ChatGPT 3.5 in the Jigsaw model, but to determine whether students used it as a supportive tool or became.dependent on it. The completeness of the stages reflects the depth of cognitive engagement: students who went through planning, interaction, critique, integration, and teaching demonstrated active thinking and knowledge synthesis, showing that ChatGPT supported their learning. In contrast, when key stages especially critique, integration, and the teaching phase were skipped, it suggested a more surface-level use aimed at obtaining quick answers rather than developing deeper understanding and which can be lead into overdependence on AI.

2. The Roles of ChatGPT 3.5 in Jigsaw Learning Process

This section addresses the second research question, which aims to examine the specific pedagogical roles of ChatGPT 3.5 in supporting students' learning processes during Jigsaw cooperative learning in the Qualitative Research Method course.

To answer this research question, the researcher conducted semi-structured interviews using questions developed based on the Generative AI in Education framework proposed by Sabzalieva and Valentini. The analysis focused on identifying the presence of six pedagogical roles in students'

learning practices: Possibility Engine, Socratic Opponent, Collaboration Coach, Guide on the Side, Study Buddy, and Exploratorium.

The findings demonstrate how these theoretical roles were applied in students' real learning experiences within an academic setting. A summary of the findings, including the frequency of use and specific applications of each role, is presented in the table

Table 4. 5

Students' Identification of ChatGPT 3.5 Roles in Jigsaw Learning

NO	ROLES OF CHATGPT	FREQUENCY
1	**Possibility Engine**	12 students
2	**Study Buddy**	12 students
3	**Guide on the Side**	5 students
4	**Exploratorium**	4 students

Based on the table above, the findings are explained in the following roles:

a. Possibility Engine

Most students used ChatGPT to generate alternative explanations and simplify complex qualitative research concepts. In the Jigsaw process, this helped them rephrase abstract theories into clearer language before teaching peers.

b. Study Buddy

ChatGPT was widely used to check understanding and ensure readiness. In the Qualitative Research course, where students must teach

methodological concepts, AI functioned as a self-verification tool to reduce uncertainty.

c. Guide on the Side

A smaller group used ChatGPT as structured guidance to understand difficult paradigms. This shows moderate use of AI for conceptual scaffolding, but not as a replacement for lecturer explanation.

d. Exploratorium

Only a few students used AI to explore broader perspectives or compare theoretical distinctions. This indicates that deeper epistemological exploration in qualitative research depended more on individual initiative than on AI use.

e. Absent Roles (Socratic Opponent & Collaboration Coach)

These roles were not identified, suggesting that ChatGPT was rarely used to challenge students' thinking or to facilitate collaboration, even though critical debate and peer interdependence are central in Jigsaw learning.

Overall, the findings show that in the Qualitative Research Method course, ChatGPT was mainly used as a supportive tool for simplifying concepts and checking understanding, as reflected in the dominant Possibility Engine and Study Buddy roles. However, its limited use for deeper exploration and the absence of critical and collaborative roles suggest that AI primarily supported preparation and clarity rather than

fostering higher-order critical thinking and collaborative inquiry in the Jigsaw process.

To further understand how ChatGPT 3.5 functioned in the Qualitative Research Method course, it is important to examine the relationship between students' learning phases and the roles they identified during the Jigsaw process. After identifying the dominant roles of ChatGPT in Table 4.2, the researcher then mapped each student's phase engagement alongside the roles they experienced. This mapping is presented in Table 4.3 to provide a clearer overview of how phase participation may relate to the types of roles recognized by the students.

Table 4. 6

Students' Phase Engagement and Identified Roles of ChatGPT 3.5 in Jigsaw Learning

NO	STUDENTS	STEPS	ROLES	DESCRIPTIONS
1.	**Student 1(LA)**	**Complete**	1. Guide on the Side 2. Exploratorium 3. Possibilty Engine	Student 1 fully engaged in all phases. She successfully used ChatGPT to scaffold abstract concepts, explore expert perspectives, generate alternative explanations, and evaluate her readiness before teaching her peers.
2.	**Student 2(SP)**	**Skip Reflection Phase**	1. Possibility Engine 2. Study Buddy	Student 2 skipped the Reflection phase. She utilized ChatGPT pragmatically to find alternative phrasings and check her understanding, but

				failed to critically evaluate and adjust her future learning strategy.
3.	**Student 3(LN)**	**Skip S3-S4-Reflection Phase**	1. Possibility Engine 2. Study Buddy	Student 3 skipped Critique, Integration, and Reflection. Because of blind trust and isolated learning, she only used AI to translate alternative words and check her basic readiness, without synthesizing it with the lecturer's materials.
4.	**Student 4(MP)**	**Skip S3**	1. Possibility Engine 2. Study Buddy	Student 4 skipped the Critique phase due to circular validation. She relied on AI for alternative explanations and self-assessment, but failed to critically cross-check the information with actual academic literature.
5.	**Student 5(GT)**	**Skip S4-S5**	**None** *(No Roles Identified)*	Student 5 skipped Integration and Teaching due to the illusion of competence. Because he ultimately abandoned ChatGPT for producing inaccurate data, the AI failed to fulfill any theoretical learning roles for him during the Jigsaw process.
6.	**Student 6(NS)**	**Skip S3 & Reflection Phase**	1. Possibillity Engine 2. Study Buddy	Student 6 skipped Critique and Reflection. She used AI to rephrase complex terms into simple languages and check her understanding, but showed complacency by refusing to upgrade her learning strategy.

NO	STUDENTS	STEPS	ROLES	DESCRIPTIONS
7.	**Student 7(AN)**	**Skip S4 and Teaching Phase**	1. Guide on the side 2. Possibility Engine 3. Study Buddy	Student 7 skipped Integration and Teaching. While she used AI for step-by-step guidance and alternative phrasings, her over-reliance disrupted the teaching flow and caused boredom in her Home Group.
8.	**Student 8(SN)**	**Complete**	1. Guide on the side 2. Posibility Engine 3. Study Buddy	Student 8 completed all phases. She meticulously used AI to guide her thinking framework, formulate relatable alternative languages, and check her readiness while strictly cross-referencing with textbooks.
9.	**Student 9(DP)**	**Skip Teaching & Reflection Phase**	1. Study Buddy	Student 9 skipped the Teaching and Reflection phases. His constant search for answers caused a flow disruption in his group. Thus, AI only functioned successfully as a personal diagnostic tool (Study Buddy) before the discussion.
10.	**Student 10(TS)**	**Skip S3**	1. Exploratorium 2. Posibility Engine 3. Study Buddy	Student 10 skipped Critique due to time constraints. She effectively explored examples and used AI to generate alternative points, but failed to verify the literature epistemologically.

NO	STUDENTS	STEPS	ROLES	DESCRIPTIONS
11.	**Student 11(RD)**	**Skip S3**	1. Guide on the side 2. Exploratorium 3. Possibility Engine 4. Study Buddy	Student 11 skipped Critique by acting merely as a data compiler. However, she maximized AI across four roles to explore authors' perspectives, seek step-by-step guidance, and construct casual alternative phrasings.
12.	**Student 12(DF)**	**Skip S3 & Reflection Phase**	1. Guide on the side 2. Exploratorium 3. Possibility Engine	Student 12 skipped Critique and Reflection. He successfully explored theories and used AI to guide his understanding with alternative metaphors, but failed to objectively assess his own readiness (Study Buddy) due to biased self-confidence.
13.	**Student 13(RS)**	**Skip S3 & Reflection Phase**	1. Posibilty Engine 2. Study Buddy	Student 13 skipped Critique and Reflection. He delegated verification tasks entirely to the lecturer and rejected strategic adjustments. AI was solely used to simplify sentences (Alternative) and clarify his misunderstandings.
14.	**Student 14(GC)**	**Skip S3 & Reflection Phase**	1. Posibilty Engine 2. Study Buddy	Student 14 skipped Critique and Reflection. Driven by time constraints, she accepted AI's inaccuracies as long as the language was Gen-Z friendly, using it purely as a rapid alternative phrasing machine and a quick readiness check.

Based on the table above, the findings are explained in the following phases:

a. Students who completed all phases

These students demonstrated more diverse roles of ChatGPT, including Guide on the Side, Exploratorium, Possibility Engine, and Study Buddy. This indicates that AI was used to guide thinking, explore theories, generate alternatives, and evaluate understanding, not merely to obtain answers.

b. Students who skipped Phase 3 (Critical Evaluation)

Their identified roles were mostly limited to Possibility Engine and Study Buddy. Without critical evaluation or cross-checking with academic sources, AI was used mainly for rephrasing and basic clarification rather than deeper analysis.

c. Students who skipped Integration and Teaching

ChatGPT tended to function as a primary reference rather than a supportive tool aligned with lecturer materials. The absence of these phases reduced knowledge transformation and limited AI's pedagogical function.

d. Students who skipped Reflection Phase

Although some supportive roles were identified, their AI use remained task-oriented rather than strategic. The lack of reflection suggests limited metacognitive awareness and a higher risk of dependency.

Overall, the findings indicate that in the Qualitative Research Method course, the role of ChatGPT within the Jigsaw model was shaped not by the tool itself but by how deeply students engaged in each learning phase. Students who completed critical stages such as Critique, Integration, Teaching, and Reflection demonstrated more diverse and pedagogically meaningful roles of ChatGPT, using it to clarify complex qualitative concepts, explore theoretical perspectives, synthesize knowledge, and strengthen their readiness to teach peers.

In contrast, students who skipped key steps tended to use ChatGPT in more limited ways mainly for rephrasing and quick clarification without strong verification or knowledge transformation. This suggests that in learning qualitative research, where critical thinking and epistemological awareness are essential, the completeness of phase engagement determines whether ChatGPT functions as a supportive scaffold for deeper understanding or merely as a shortcut for surface-level performance.

B. DISCUSSION

Based on the findings on the use of ChatGPT 3.5 in the Jigsaw learning method, this study indicates that the integration of Generative AI (GenAI) is not merely a technical adoption, but a complex cognitive and social process. This perspective aligns with Luckin's view that AI in education should not replace human intelligence, but rather function as a tool to open the black box of learning by providing personalized scaffolding.

In the context of this study, ChatGPT 3.5 functioned as a dynamic support system that assisted students throughout the stages of the Jigsaw method, starting from individual mastery in the Expert Group to knowledge transfer in the Home Group. The findings show a systematic cycle consisting of six distinct steps. Eachs steps represents an important cognitive step in which students negotiated meaning between AI-generated responses and the academic requirements of the course. A more detailed explanation of each phase is presented in the following section.

1. The Step-by-Step Involvement of ChatGPT 3.5 in Jigsaw Learning Method

a. Planning and Prompt Construction

The discussion of the first step focuses on how students prepared themselves before interacting with the AI. In the Jigsaw cooperative learning model, before students can teach their peers in the home group,[48] they must first achieve a high level of individual mastery regarding their assigned sub-topics. The findings revealed that the decision to integrate ChatGPT was a voluntary, bottom-up initiative driven by the students' urgent need to comprehend complex Qualitative Research materials during this crucial preparation stage.

The primary driver for this adoption was the linguistic barrier. Because the handouts contained advanced academic terminology (Grounded Theory or Case Study), students instinctively turned to

[48] Elliot Aronson, *The Jigsaw Classroom* (Beverly Hills: Sage, 1978)

ChatGPT 3.5 due to its accessibility and speed. As representatively stated by Student 4 below.

> **MP1 interview data:**
> *"I use ChatGPT for several paragraphs that contain academic vocabulary or advanced level vocabulary…"*
> *(Full* original and other interview results can be seen in the appendix section)

This behavior aligns with the findings of Chan and Hu,[49] who argued that university students prioritize Generative AI tools that are barrier-free to support their immediate academic needs. Furthermore, the document analysis of the course syllabus confirmed that this integration was academically permissible, as the syllabus explicitly required students to be proficient in utilizing technology for research.

After selecting the tool, the students engaged in specific prompt construction strategies to ensure the AI's output aligned with their Jigsaw responsibilities. In related to Mollick and Mollick,[50] the quality of AI output depends heavily on the user's ability to provide clear context. In this study, students demonstrated highly targeted strategies to inject this context.

Rather than typing broad questions, students evolved to use multimodal inputs to prevent the AI from generating irrelevant answers. For instance, Student 5 (GT) captured the specific academic text by photographing the lecturer's handout before prompting the AI.

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[49] Cecilia Ka, Yuk Chan, and Wenjie Hu, "Students ' Voices on Generative AI : Perceptions , Benefits , and Challenges in Higher Education," n.d.
[50] Wharton Interactive, "ASSIGNING AI : SEVEN APPROACHES FOR," 2023, 1–48.

GT5 interview data:
"I took a photo of the handout given by the lecturer first. Then I uploaded it to ChatGPT... so I gave the prompt: help me explain this text in detail.."
(Full, original and other interview results can be seen in the appendix section)

This contradicts earlier research by Fitria which mostly focused on text-only prompts, showing a technical evolution in how students ensure accuracy for their Jigsaw preparation.[51] Because the ultimate goal in Jigsaw is to teach peers, students crafted prompts specifically designed to translate complex academic texts into digestible concepts.

To verify this finding, the researcher triangulated the data with the lecturer's perspective. The lecturer of the Qualitative Research Method course confirmed that he applied a collaborative teaching approach and allowed students to freely choose their learning resources.

MRG9 interview data:
"Okay, so about the use of ChatGPT or the other AI-based platforms, so I have no problems with the use of their use as long as they support your work or understanding…"
(Full, original and other interview results can be seen in the appendix section)

This finding is supported by the syllabus document analysis. There is no written prohibition on AI use in the syllabus (Criterion 5). Additionally, one of the course objectives requires students to be proficient in utilizing technology for research. This indicates that the course design

[51] Tira Nur Fitria, "A Library Research in English Education Research: A Guidance for Researchers..." *Prosiding Seminar Nasional & Call for Paper* 6, no. 1 (2023): 116–40.

provided an open and legitimate space for students to use digital tools such as ChatGPT to support their learning. (Document analysis results are available in the appendix section.)

In conclusion, Phase 1 was not merely about asking random questions to a chatbot. It was a strategic process of expert group preparation. Students actively transformed physical handouts into digital data and customized their prompts to simplify complex materials, ensuring they possessed the foundational knowledge required before facing their peers in the subsequent Jigsaw stages.

b. Interaction and Answer Generation

Following the initial prompt, the process shifted to the interaction stage. In the Jigsaw method, building expertise in the expert group requires active knowledge construction, not passive reading. The findings demonstrated that students did not simply accept the AI's first answer; rather, they engaged in an iterative dialogue to refine the output until it met the pedagogical demands of their peer-teaching role.

The researcher identified three specific interaction strategies employed by the students during this knowledge-building phase. To maintain consistency and prevent the AI from hallucinating or deviating from the Qualitative Research syllabus, students intentionally restricted their interactions to a single chat thread. Student 2 (SP) explained this strategy.

SP6 interview data:
"...But, I use this in the same room. So, that one room is specifically for asking, for example, about case study. So, what ChatGPT gives still follows the initial guide. It doesn't spread everywhere."
(Full, original and other interview results can be seen in the appendix section)

This behavior supports the Iterative Process emphasized by Mollick and Mollick, who argue that generative AI functions best when users maintain a continuous dialogue, allowing the tool to retain previous parameters.[52]

Because theoretical explanations of Qualitative concepts such as Coding or Paradigms are often abstract, students actively demanded concrete, real-life examples from the AI. By asking the AI to provide practical illustrations, students effectively utilized the tool as a personalized scaffolding mechanism. This aligns with Kasneci et al., who assert that Generative AI can function as a tailored tutor capable of simplifying abstract concepts to match the learner's cognitive level.[53]

Contrary to the assumption that students blindly trust AI outputs, the interaction phase revealed moments of strict academic verification. To ensure they would not disseminate false information to their Jigsaw Home Group, students triangulated the AI's answers with authoritative sources. Student 5 (GT) demonstrated this critical engagement:

GT7 interview data:
"I don't immediately trust ChatGPT. But I combine ChatGPT with Google. For example, if ChatGPT brings up a reference, I search

[52] Interactive, "ASSIGNING AI : SEVEN APPROACHES FOR."
[53] Maria Bannert et al., "ChatGPT for Good ? On Opportunities and Challenges of Large Language Models for Education," n.d., 1–13.

for the book again on Google Scholar. To verify the source from ChatGPT."
(Full, original and other interview results can be seen in the appendix section)

This finding resonates with Dwivedi et al., who emphasize that the user's active role in verifying Generative AI outputs is paramount before utilizing them in academic settings.[54]

In conclusion, the Interaction Phase functioned as a dynamic cognitive space where students negotiated meaning. By confining the AI to specific contexts, demanding concrete examples, and verifying the outputs, students actively constructed their expertise. This rigorous interaction ensured that they were cognitively prepared to act as valid experts for their peers in the subsequent Jigsaw stages.

c. Critique and Revision

In the Jigsaw method, the validity of the learning process depends entirely on the accuracy of the expert student. If an expert misunderstands the concept in the preparation phase, they risk passing misconceptions to their peers in the home group.[55] According to the official guidelines from Dikti,[56] students utilizing GenAI like ChatGPT are expected to critically evaluate and verify the generated information before applying it

[54] Yogesh K Dwivedi et al., "International Journal of Information Management Opinion Paper : ' So What If ChatGPT Wrote It ? ' Multidisciplinary Perspectives on Opportunities , Challenges and Implications of Generative Conversational AI for Research , Practice and Policy ☆" 71, no. March (2023), https://doi.org/10.1016/j.ijinfomgt.2023.102642.
[55] Elliot Aronson, *The Jigsaw Classroom* (Beverly Hills: Sage, 1978).
[56] Pembelajaran et al., "PANDUAN PENGGUNAAN GENERATIVE ARTIFICIAL INTELLIGENCE (GenAI)."

academically. However, the data analysis revealed a significant vulnerability in this phase. The majority of the students skipped the rigorous verification process, placing blind trust in the AI's output.

A minority of the students fulfilled their individual accountability by treating ChatGPT as a secondary source that required triangulation with primary literature or the lecturer's confirmation. Student 2 (SP) demonstrated this high sense of academic responsibility towards her peers.

> **SP11 Interview data:**
> *"The main thing is to ask the lecturer concerned... I'm afraid, I shouldn't give wrong information to friends."*
> (Full, original and other interview results can be seen in the appendix section)

Another student, GT, similarly cross-checked AI outputs against academic journals to find conceptual gaps in specific theories like Phenomenology. This responsible behavior demonstrates the ideal preparation for a Jigsaw expert, ensuring the Qualitative Research concepts they bring to their group are factually accurate.

In stark contrast, the majority of the students bypassed this critical evaluation. The findings indicated that students often equated the language simplicity of ChatGPT with factual accuracy. Because ChatGPT successfully translated complex Qualitative Research materials into easily digestible language, students assumed the content was inherently correct. Student 13 (RS) explicitly illustrated this over-reliance:

> **RS3 Interview data:**
> *"So in my opinion, I judge ChatGPT from the form I made earlier as very credible... So the probability of it being wrong is quite small."*

(Full, original and other interview results can be seen in the appendix section)

In the context of Jigsaw cooperative learning, this behavior is highly detrimental. By bypassing the cognitive effort of verifying complex handouts and easily accepting ChatGPT's summaries, these students compromised their role as reliable experts.

In conclusion, step 3 emerged as the weakest link in the students' Jigsaw preparation process. Although ChatGPT effectively delivered understandable explanations, the absence of critical verification from the majority of the students meant they were at a high risk of internalizing and subsequently teaching incorrect Qualitative Research paradigms to their home group peers.

d. Integration

According to the guidelines from Dikti, the integration phase requires students to combine AI-generated information with reliable academic sources and take full responsibility for the output.[57] In the Jigsaw cooperative learning model, this step represents the final cognitive preparation within the expert group before students transition to teach their peers in the home group.[58] Unlike step 3, where the majority bypassed critical verification, data analysis revealed high compliance in step 4. Most students actively synthesized ChatGPT outputs with their Qualitative Research handouts to formulate comprehensive explanations.

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[57] Pembelajaran et al.

[58] Elliot Aronson, *The Jigsaw Classroom* (Beverly Hills: Sage, 1978).

The researcher identified that students employed specific strategies to fulfill their individual accountability for peer-teaching. First, students utilized the lecturer's handout as the primary curriculum framework, using ChatGPT strictly for detailed clarification. Student 1 (LA) explicitly represented this relationship:

> **LA14 interview data:**
> *"The final result from ChatGPT is held while holding the mister's handout, mister's handout remains the reference for explaining... Then I also explain the explanation from ChatGPT."*
> (Full, original and other interview results can be seen in the appendix section)

To reinforce their memory, several students physically transcribed and summarized these synthesized points into their notebooks. This active processing aligns with empirical findings by Gimpel et al., who observed that Generative AI is most effective in higher education when it functions as a supportive tool that expands upon rather than replaces the core academic materials.[59]

Furthermore, because Qualitative Research concepts such as Ethnography or Data Coding can be overly theoretical, students actively modified ChatGPT's formal machine language into casual peer language. Student 4 (MP) illustrated this necessity:

> **MP13 interview data:**
> *"Because ChatGPT's language is stiff... So when I got the explanation from ChatGPT, I simplified it again into my own language before explaining it to my group friends."*
> (Full, original and other interview results can be seen in the appendix section)

[59] Hohenheim Discussion, Social Sciences, and Maximilian Röglinger, "Unlocking the Power of Generative AI Models and Systems Such as GPT-4 and ChatGPT for Higher Education : A Guide for Students and Lecturers GENERATIVE AI MODELS AND SYSTEMS

This adaptive behavior is critical for the success of Jigsaw's peer-teaching mechanism, where communicability is key. It also corroborates Chan's study, which highlighted that students often act as translators,[60] converting AI-generated content into contextually appropriate language for their peers to ensure active comprehension.

In conclusion, step 4 was a highly active cognitive stage where students took ownership of the knowledge. Instead of merely copying and pasting, they integrated the AI output with their authoritative handouts, transcribed it manually, and adapted the linguistic delivery. This rigorous integration ensured that the knowledge they brought back to their Home Group was not just isolated AI data, but rather integrated knowledge aligned with the Qualitative Research course objectives and tailored for effective peer learning.

e. Teaching

According to Aronson in Jigsaw Cooperative Learning theory, the return to the home group is the most critical phase of the cycle. It relies heavily on positive interdependence, where students must actively teach and learn from their peers through genuine conversation. However, the data analysis revealed a complex paradox in this step. While, ChatGPT boosted the expert students' confidence in delivering materials, its real-

[60] Chan Int et al., "A Comprehensive AI Policy Education Framework for University Teaching and Learning," *International Journal of Educational Technology in Higher Education*, 2023, https://doi.org/10.1186/s41239-023-00408-3.

time presence physically and cognitively disrupted the authentic peer interaction that Jigsaw is designed to foster.

On the positive side, students utilized AI to translate complex Qualitative Research terminology into simpler terms. This strategy reduced their cognitive load and made them feel more confident when explaining abstract concepts to their Home Group. Student 14 (GC) represented this benefit:

> **GC6 interview data:**
> *"Sometimes it's hard for us to grasp such a long text. So, if we use ChatGPT, it can be immediately summarized using our own language... So, we are not confused."*
> (Full, original and other interview results can be seen in the appendix section)

This behavior aligns with prior research by Tan et al., which noted that AI can enhance learners' understanding and facilitate clearer communication of complex concepts during collaborative tasks.[61]

Despite these preparatory benefits, a highly detrimental pattern emerged during the actual peer-teaching process. When spontaneous questions arose in the home group, students frequently turned to their screens to ask ChatGPT instead of attempting to negotiate meaning collaboratively. Student 2 (SP) explicitly described this disruption:

> **SP22 interview data:**
> *"Of course the discussion flow will be paused, because maybe some are busy looking for the answers we want."*
> (Full, original and other interview results can be seen in the appendix section)

[61] Tan, Lee, and Lee, "A Systematic Review of Artificial Intelligence Techniques for Collaborative Learning over the Past Two Decades."

This reliance created a classroom dynamic where students were physically grouped but mentally isolated. The lecturer (MRG) corroborated this observation, highlighting the direct threat to the Jigsaw method:

> **In the interview, MRG13 explicitly stated:**
> *"...the combinations between AI and jigsaw learning method remains a challenge until today because jigsaw is about real conversations or real interactions. Meanwhile, when AI is involved, those real or the actual conversations could be disrupted by the use of AI…"*
> (Full, original and other interview results can be seen in the appendix section)

This phenomenon reflects a significant compromise of Jigsaw's core mechanics. Moorhouse and Wong warned of this exact risk, noting that in AI-integrated classrooms, students might interact more with the bot than with their human partners.[62] By relying on AI for immediate answers, students bypassed the active peer-learning process. Although recent studies by Fan et al.[63] and Lim et al.[64] observed similar trends of high dependency in other collaborative settings, in the specific context of this Qualitative Research class, this dependency eroded the spirit of positive interdependence. Students became highly capable of providing correct

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[62] Benjamin Luke Moorhouse and Kevin M Wong, *In Education Generative Artificial Intelligence and Language Teaching*, vol. 3741, n.d.

[63] Guangrui Fan et al., "The Impact of AI - Assisted Pair Programming on Student Motivation , Programming Anxiety , Collaborative Learning , and Programming Performance : A Comparative Study with Traditional Pair Programming and Individual Approaches," *International Journal of STEM Education*, 2025, https://doi.org/10.1186/s40594-025-00537-3.

[64] Weng Marc et al., "The International Journal of Management Education ¨ k or Generative AI and the Future of Education : Ragnar o Reformation ? A Paradoxical Perspective from Management Educators" 21, no. March (2023): 1–13.

answers, but they functioned more as AI-readers than independent peer-teachers.

In conclusion, while ChatGPT successfully supported the preparation of teaching materials, its real-time use during the Home Group phase weakened the authentic peer-teaching experience. The heavy dependence on AI created conversational pauses, reduced natural human interaction, and ultimately compromised the fundamental collaborative objective of the Jigsaw method.

f. Reflection Phase

The final stages in the Jigsaw cooperative learning cycle requires students to evaluate their learning process and group dynamics to improve future performance.[65] The data analysis revealed a clear division in how students reflected on their ChatGPT usage, highlighting a disconnect between short-term task completion and long-term academic independence.

A minority of the students demonstrated critical reflection, recognizing that heavy reliance on ChatGPT could hinder their credibility as Experts in their group. These students actively planned to adjust their strategies by reducing dependency, cross-checking with textbooks, or switching to other AI tools for better accuracy. Student 8 (SN) highlighted

[65] David W. Johnson, Roger T. Johnson, and Edythe Johnson Holubec, *Cooperation in the Classroom*, 7th ed. (Edina, MN: Interaction Book Company, 1998).

why this adjustment is crucial, particularly in the Qualitative Research Method course where theories are highly abstract:

> **SN6 interview data:**
> *"In the future, maybe I will be more detailed in writing Prompts... And more often cross-check with books to be more sure, so it's not just about understanding quickly but also being critical."*
> (Full, original and other interview results can be seen in the appendix section)

This behavior aligns with the findings of Chan and Hu, who noted that as students develop AI literacy, they begin to critically evaluate how tools serve their academic needs rather than consuming outputs passively.[66]

In stark contrast, the majority of the students expressed no intention to change their learning strategy. They perceived ChatGPT primarily as an efficiency tool and remained satisfied with the status quo. Student 13 (RS) explicitly represented this mindset:

> **RS18 interview data:**
> *"So in my opinion, I will not change my technique for using ChatGPT because I think it is the most effective way for me."*
> (Full, original and other interview results can be seen in the appendix section)

This lack of critical reflection directly correlates with the vulnerabilities identified in step 3; students who bypassed critical verification earlier were also less reflective afterward, prioritizing speed over deep comprehension.

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[66] Ka, Chan, and Hu, "Students ' Voices on Generative AI : Perceptions , Benefits , and Challenges in Higher Education."

The lecturer (MRG) corroborated this concern, observing that the presence of AI often weakened students' attention to actual reading materials. Recognizing this dependency, the lecturer planned a countermeasure for future classes to restrict AI usage and force students to focus on physical references, thereby restoring authentic engagement.

> **MRG13 interview data:**
> *"...I'm going to bring a lot more references into the classroom. So, they're going to be focused on that paper on their hand, and nobody is allowed to use AI at that moment.*" (Full, original and other interview results can be seen in the appendix section)

This pedagogical intervention supports the broader empirical conclusion drawn by Zawacki-Richter et al., which emphasizes that technology alone does not guarantee better learning unless students actively regulate their own cognitive processes.[67]

In conclusion, the Reflection Phase revealed that while ChatGPT successfully supported initial understanding and task completion for the Jigsaw method, it did not automatically foster independent, reflective learning habits. Without intentional guidance and strict academic boundaries, the majority of students favored the convenience of AI over the rigorous critical thinking required in a Qualitative Research course.

[67] Olaf Zawacki-richter, Victoria I Marín, and Melissa Bond, "Systematic Review of Research on Artificial Intelligence Applications in Higher Education – Where Are the Educators ?," 2019.

3. The Roles of ChatGPT 3.5 in Jigsaw Learning Process

Before presenting the findings, this study refers to Mike Sharples (2023) in Towards social generative AI for education: theory, practices and ethics, which views generative AI as a social learning partner with roles such as Possibility Engine and Socratic Opponent. However, this study not only identifies these roles in the Jigsaw learning process, but also examines whether they truly functioned as expected or whether ChatGPT 3.5 was mainly used as a task-support tool, revealing a possible gap between theory and classroom practice.

a. Socratic Opponent

According to Sharples, the Socratic Opponent role occurs when AI acts as a teaching partner that asks challenging questions, disagrees with the user, and encourages deeper critical thinking. However, the data showed that this role was completely absent in practice. None of the 14 students reported that ChatGPT questioned their initial understanding or prompted them to deepen their reasoning through debate.

The main reason this role was absent is that students prioritized efficiency over engaging in cognitive challenges. Since generative AI models are designed to be helpful and agreeable, they usually confirm the user's ideas instead of challenging them unless the user specifically instructs the AI to act as a debater.[68] Students took advantage of this

[68] Bannert et al., "ChatGPT for Good ? On Opportunities and Challenges of Large Language Models for Education."

tendency, using the AI to avoid the deep thinking required for Jigsaw preparation. Student 13 (RS) clearly demonstrated this behavior:

> **RS1 interview data:**
> *"But on the other hand, I was too lulled by ChatGPT itself... it made me lazy to think further... So it can be said that I accepted it immediately, without any debate... Correct, that's why we were effortless."*
> (Full, original and other interview results can be seen in the appendix section)

Although a few students stated that they engaged in critical thinking when using the AI, further analysis showed that their effort was mostly limited to verifying the AI's summaries for correctness. They did not engage in true critical debate, such as defending or challenging the AI's ideas.

In the context of the Qualitative Research Method course, the lack of a Socratic Opponent role is academically important. As John W. Creswell emphasizes, qualitative research requires advanced critical thinking to interpret abstract concepts and paradigms, such as Ethnography or Case Study.[69] To teach these concepts effectively in the Jigsaw Home Group, an Expert student must deeply internalize the material, not merely memorize it.[70] However, because students relied on AI as an easy shortcut to get answers, they missed the chance to build deep understanding. They often confused the AI's clear and fluent explanations with their own genuine comprehension of the material.

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[69] John W. Creswell, *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*, 4th ed. (Thousand Oaks: SAGE Publications, 2014).
[70] Elliot Aronson, *The Jigsaw Classroom* (Beverly Hills: Sage, 1978).

To understand the reason behind this, the researcher compared the findings with the lecturer's perspective. The lecturer (MRG) explained that students' main goal in the assignment was mainly to clarify concepts, not to solve complex cases. This focus unintentionally encouraged students to look for quick answers instead of engaging in deeper critical debate.

In summary, the lack of the Socratic Opponent role does not mean that ChatGPT failed technically. Instead, it reflects how students actually use the tool in a structured cooperative learning environment. Under the pressure to quickly prepare for their peer-teaching tasks in the Jigsaw method, students tended to choose the easiest path. The findings suggest that AI can only act as a true critical partner if the learning design explicitly requires it and if students are willing to prioritize deep critical thinking over speed.

b. Collaboration Coach

According to the Mike Sharple framework, the role of a Collaboration Coach implies that generative AI should facilitate group discussion, help divide tasks, and strengthen bonds between learners.[71] However, the data analysis revealed that this role failed to materialize in this study. Instead of acting as a bridge that connected students, ChatGPT 3.5 unintentionally acted as a barrier that promoted individualism, directly undermining the core Jigsaw principle of positive Interdependence.

[71] Sharples and Sharples, "Towards Social Generative AI for Education : Theory , Practices and Ethics and Ethics ABSTRACT."

The Jigsaw method is designed so that students depend on their peers' expertise to succeed. Analysis of the Qualitative Research syllabus confirmed this structure, showing that the course emphasized Collaborative Learning for complex topics such as Data Collection Instruments. However, interview data revealed that ChatGPT disrupted this interdependence. Since students could access expert knowledge directly through the AI, the human Expert Student became less relevant. Student 9 (DP) highlighted this resulting breakdown in trust:

> **DP9 interview data:**
> *"So I depend more on ChatGPT... Because maybe my friends' explanations are just as confused as I am. So it's better we just take it to ChatGPT."*
> (Full, original and other interview results can be seen in the appendix section)

Student 14 (GC) explicitly explained this shift in behavior:

> **GC11 Interview Data:**
> *"If compared to waiting for friends to study this part... that feels long, right? So we just learn together by asking ChatGPT to create the concept idea immediately."*
> (Full, original and other interview results can be seen in the appendix section)

This reliance caused students to engage only lightly with the material. In the Qualitative Research course, understanding topics like Case Study or Phenomenology needs discussion and debate with peers. Instead, students used AI as a shortcut to answers, missing the chance to learn together. This supports Chan's point that although AI gives quick

information, it can make students skip the important step of explaining ideas to each other, which is key in collaborative learning.[72]

The mutual dependency that defines the Jigsaw method was thus replaced by individual Independence, resulting in a classroom of isolated individuals who were physically sitting together but cognitively interacting only with their screens. The lecturer (MRG) observed this exact phenomenon and recognized the immediate threat to the collaborative design:

> **MRG12 interview data:**
> *"...ChatGpt tends to give you the similar answer... Meanwhile, your friends could... let's say that they're still struggling when they're explaining things to you... So, that was why... they tend to depend on the use of AI rather than asking their friends..."*
> (Full, original and other interview results can be seen in the appendix section)

As a result, the lecturer planned to limit AI use in future classes and require students to rely on physical references, aiming to restore genuine peer interaction.

In conclusion, the presence of ChatGPT 3.5 created a severe tension between efficiency and interaction. It contradicted optimistic views from institutions like Mike Sharples that suggest AI naturally supports collaboration. While the tool improved individual preparation, it systematically weakened the live discussion and positive interdependence required in Jigsaw learning. This finding highlights a critical challenge for

[72] Int et al., "A Comprehensive AI Policy Education Framework for University Teaching and Learning."

educators: without strict instructional boundaries, highly efficient AI tools can easily replace the human interaction that cooperative learning methods depend upon.

c. Exploratorium

According to the Mike Sharples framework, the Exploratorium role involves using generative AI to explore different explanations, examples, and viewpoints of a topic to build a broader understanding. In the context of the Jigsaw method, this role is highly relevant during the Expert Group phase, where students must comprehensively explore and master their assigned material before teaching it to their peers.[73] Based on the data analysis, this role was successfully identified in 4 out of 14 students who actively used ChatGPT 3.5 to seek out example variations, compare expert definitions, and simplify complex qualitative paradigms.

For these students, ChatGPT played an important role in the Qualitative Research Method course by helping them understand abstract concepts more clearly. Qualitative research involves complex methodological distinctions that are often hard to grasp from a static handout. The findings show that students used the AI effectively to explore and clarify the differences between these methods. Student 4 (MP) clearly demonstrated this exploratory approach:

> **MP5 interview data:**
> *"People often mistake Narrative Inquiry and Case Study, they get swapped often... So I asked ChatGPT to clarify again about the examples, definitions, and differences of each..."*

[73] Elliot Aronson, *The Jigsaw Classroom* (Beverly Hills: Sage, 1978).

(Full, original and other interview results can be seen in the appendix section)

Other students also used the AI to combine definitions from different experts or to generate more examples for their work. This behavior is consistent with the findings of Kasneci, who observed that generative AI can support learners in organizing and expanding knowledge efficiently.[74] and Crompton & Burke,[75] who noted that generative AI works as an effective exploratory tool, giving quick access to multiple perspectives and clear, structured explanations.

Futhermore, it is crucial to address why the overwhelming majority 10 out of 14 students did not experience this Exploratorium role. Based on the interview data, these 10 students did not use ChatGPT to explore multiple perspectives or compare definitions. Instead, they approached the AI with a narrow focus, seeking only quick, simplified summaries of their specific subtopics. Because their primary goal was to find instant answers to complete the Jigsaw task as fast as possible, they bypassed the broader exploration process entirely. Furthermore, many of these students strictly relied on the exact handout provided by the lecturer. They only used the AI to translate or simplify the existing language to functioning strictly as a Possibility Engine, rather than exploring the wider conceptual space of Qualitative Research methodologies.

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[74] Bannert et al., "ChatGPT for Good ? On Opportunities and Challenges of Large Language Models for Education."

[75] Helen Crompton and Diane Burke, "Artificial Intelligence in Higher Education: The State of the Field," *International Journal of Educational Technology in Higher Education* 20, no. 1 (2023), https://doi.org/10.1186/s41239-023-00392-8.

However, the researcher found a key weakness in how this exploration worked within the Jigsaw cycle: a large gap between retrieving information and actually remembering it. In the Jigsaw method, an Expert student needs to internalize the information long enough to teach it effectively to their Home Group. The data showed that because the AI provided comparisons so quickly and easily, students often consumed the information passively instead of processing it actively. As a result, they forgot much of what they explored. Student 8 (SN) expressed this common experience:

> **SN8 interview data:**
> *"Explanations from ChatGPT tend to disappear quickly. In fact, not only the following week, even the next day I often forget."*
> (Full, original and other interview results can be seen in the appendix section)

This issue highlights a failure in the deep learning needed for effective collaborative teaching. By letting the AI handle most of the exploring and synthesizing, students avoided the mental effort required to truly understand the material. Grassini warned that heavy reliance on generative AI can promote passive learning, leading to shallow understanding and poor memory retention.76 The lecturer (MRG) corroborated this, observing that while the students' Jigsaw presentations appeared structurally neat, they often lacked the depth that comes from fully internalized thinking.

> **MRG12 interview data:**
> *"Their explanation is really structure well... really good, really neat... But somehow... it's kind of hard for me to believe that is purely from their thought."*

(Full, original and other interview results can be seen in the appendix section)

In conclusion, the Exploratorium role had mixed results. It helped a few students prepare for the Jigsaw method by quickly clarifying abstract Qualitative concepts and broadening their references. However, without active cognitive work such as note-taking or deep reading this AI-assisted exploration led to weak, short-term understanding. As a result, students struggled to maintain the knowledge needed to be reliable, long-term experts for their Home Group peers.

d. Guide on the Side

According to the Sabzalieva and Valentini framework, the Guide on the Side role positions generative AI as a supportive tool that assists students in navigating complex concepts and exploring new ideas, rather than acting as the primary instructor. In the context of the Jigsaw method, this role is highly relevant during the initial Expert Group phase. Before students can confidently teach their peers, they must independently make sense of difficult academic materials. Based on the data analysis, this supportive role was identified in 5 out of 14 students.

The researcher found that this role provided significant cognitive scaffolding, particularly in the Qualitative Research Method course where theories such as Phenomenology, Grounded Theory, or Deductive Reasoning are notoriously abstract. Students actively utilized ChatGPT 3.5 as a virtual tutor to translate these theoretical constructs into simpler, relatable analogies. Student 11 (RD) explicitly illustrated this benefit:

RD5 interview data:
"Usually, it gives examples, explains it again, and connects it more to real life."
(Full, original and other interview results can be seen in the appendix section)

This behavior aligns with empirical findings by Lo, who noted that Generative AI tools function effectively as virtual tutors by providing personalized simplification that matches the learner's cognitive capacity.[76]

However, it is highly important to explain why the majority of the respondents 9 out of 14 students did not experience ChatGPT as a Guide on the Side. Based on the findings, these 9 students did not treat the AI as a virtual tutor to deeply understand the material. Instead of asking ChatGPT to explain complex concepts step-by-step or asking for real-life analogies, they used it purely as a fast answer generator. Their primary motivation was simply to get the text they needed to complete their Jigsaw task. Because they bypassed the process of asking follow-up questions for clarification, the AI failed to function as a cognitive guide for them. It merely became a machine that did the work on their behalf.

Despite these scaffolding benefits, a key limitation appeared in the depth of students' expertise. While ChatGPT effectively outlined the structure of concepts, students found it lacked the subtle human context needed to fully understand the material for peer teaching. They recognized that AI explanations alone were not enough without the lecturer's guidance

[76] Chung Kwan Lo, "Education Sciences What Is the Impact of ChatGPT on Education ? A Rapid Review of the Literature," no. November 2022 (2023).

and epistemological framing. Student 14 (GC) highlighted this reliance on human instruction:

> **GC5 interview data:**
> ***"****It's just a support tool. So to understand it deeper, it goes back to the explanation from the lecturer, Mr. Gucci himself."*
> (Full, original and other interview results can be seen in the appendix section)

This finding corroborates Holmes et al., who argued that AI improves learning most effectively when students also have access to human guidance to interpret and contextualize the machine's output.[77]

The lecturer (MRG) observed this same limitation in the classroom. To stop Expert students from simply reading AI-generated answers to their Home Groups, the lecturer used follow-up questions as a strategic intervention. This approach ensured that students genuinely understood and internalized the material, rather than just repeating what was shown on their screens.

> **MRG9 interview data:**
> *"...some students use the AI or the GPT to help them understand the materials, but some other students just use the AI to do the work. So they just need to read what's on their screen... So that was why follow-up questions were always there... to make sure whether they understand or whether they just read what they got from the AI tools."*
> (Full, original and other interview results can be seen in the appendix section)

In summary, ChatGPT 3.5 worked well as a Guide on the Side, helping to simplify complex qualitative concepts into clear, real-world

[77] Wayne Holmes et al., "Ethics of AI in Education : Towards a Community-Wide Framework," 2021.

examples during the Jigsaw preparation phase. However, its role was strictly supportive. Without human verification and the lecturer's guidance, this AI-assisted scaffolding could lead to shallow understanding, highlighting that the tool should enhance not replace the human thinking process.

e. Study Buddy

According to the Sabzalieva and Valentini framework, the Study Buddy role refers to the use of generative AI as a learning partner that helps students review materials, prepare explanations, and verify their comprehension. In this study, this role was highly significant, with 10 out of 14 students utilizing ChatGPT 3.5 to validate their understanding. The researcher argues that this high prevalence is a direct manifestation of individual accountability, a foundational pillar of the Jigsaw cooperative learning method.[78]

Document analysis of the Qualitative Research course syllabus corroborated this pressure. The assessment design strictly enforced individual accountability by allocating 15% of the final grade to active participation and quizzes, alongside group projects. Because their individual academic success depended heavily on how accurately they taught their peers in the Home Group, students naturally felt the pressure to use ChatGPT as a cognitive safety net to avoid disseminating fatal

[78] Elliot Aronson, *The Jigsaw Classroom* (Beverly Hills: Sage, 1978).

misconceptions about complex concepts like Research Instruments or Paradigms.

The implementation of this role exhibited two distinct dimensions. First, students utilized the AI proactively to double-check their independent understanding. These students engaged with the material first, using ChatGPT merely to ensure their logical flow was complete before facing their peers. Student 7 (AN) explicitly illustrated this self-checking mechanism:

> **AN12 interview data:**
> *"Clearly, I actually still really need ChatGPT's help to ensure it. Because sometimes I still have doubts about what I understand... Which part of my understanding is still wrong."*
> (Full, original and other interview results can be seen in the appendix section)

This active learning approach shows that AI can serve effectively as a diagnostic tool. This finding supports the observations of Chan and Hu, who noted that students often use AI to aid self-reflection and verify facts when working with complex academic material.[79]

On the other hand, a more concerning pattern appeared: some students used the Study Buddy role mainly to reduce academic anxiety and insecurity. The pressure of peer-teaching in the Jigsaw method created fear of making mistakes, so these students turned to the AI for emotional and academic reassurance. Student 14 (GC) openly admitted that this reliance came from a strong lack of self-confidence:

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[79] Ka, Chan, and Hu, "Students ' Voices on Generative AI : Perceptions , Benefits , and Challenges in Higher Education."

GC16 interview data:
"The reason is because of dependence on ChatGPT, it's like I already trust ChatGPT 100%, so if I rely on myself, I'm afraid of being wrong."
(Full, original and other interview results can be seen in the appendix section)

This vulnerability supports the observations of Grassini, who cautioned that overreliance on ChatGPT for academic support can create strong dependency, ultimately weakening a student's confidence in their own independent critical thinking.[80]

However, to maintain a comprehensive analysis, it is necessary to highlight the 2 out of 14 students who did not experience ChatGPT as a Study Buddy. Based on the interview data, these two students did not engage in any reflective dialogue or readiness checks with the AI. Instead of using ChatGPT to test their understanding or simulate a discussion before their Home Group presentation, they treated the tool merely as a static search engine. They simply inputted a prompt, extracted the first output, and immediately closed the application without any back-and-forth interaction. Furthermore, one of these students expressed skepticism toward the AI's accuracy, preferring to rely entirely on the lecturer's exact module for their preparation. Consequently, the interactive, supportive communication required to establish a Study Buddy dynamic was completely absent for these individuals.

[80] Grassini, "Education Sciences Shaping the Future of Education : Exploring the Potential and Consequences of AI and ChatGPT in Educational Settings."

To mitigate this over-reliance, the lecturer (MRG) strategically employed follow-up questions during class presentations to verify whether students truly understood the qualitative methodologies or were merely reciting AI-approved scripts.

> **MRG9 interview data:**
> *"...follow-up questions were always there... to make sure whether they understand or whether they just read what they got from the AI tools."*
> (Full, original and other interview results can be seen in the appendix section)

In conclusion, the Study Buddy role of ChatGPT 3.5 had both benefits and risks in supporting Jigsaw preparation. It helped students validate their understanding and reduced anxiety about peer-teaching, but it also created a risk of dependency on AI judgment. The findings highlight that while AI can be a useful safety net for Expert students, careful lecturer guidance is necessary to ensure students maintain confidence in their own independent reasoning.

f. Possibility Engine

According to Mike Sharples, the Possibility Engine role refers to using generative AI to help learners create alternative ideas or new approaches to a task, supporting conceptual creativity and exploration. However, the data showed that in the Jigsaw method, students widely adopted this role but changed how it functioned. Instead of generating new theories, they mainly used the AI to create different ways of expressing ideas linguistically.

Since the learning material in the Qualitative Research Method course was already fixed in the lecturer's handouts, students did not need to create new concepts. Instead, their main challenge was communicating strict academic definitions to their peers. As a result, the primary use of the Possibility Engine shifted from conceptual creativity to language translation. Students used ChatGPT to reword complex academic terms into clear, peer-friendly language. Student 8 (SN) clearly highlighted this need:

> **SN18 interview data:**
> *"We usually need to simplify the explanation again using our own language, so that it is easier for others to understand and does not feel too stiff or heavy."*
> (Full, original and other interview results can be seen in the appendix section)

This adaptive behavior shows that students were aware of their audience in the Home Group. They understood that effective peer teaching requires using language that is different from simply reading aloud from an academic text. This finding aligns with the observations of Cao, who noted that AI tools in Jigsaw classrooms often help make communication smoother, making it easier for students to share and understand information.[81] who noted that AI agents in Jigsaw classrooms often function to reduce interactional friction, and Kohnke et al,[82] who

[81] J Cao et al., "Designing an AI Partner for Jigsaw Classrooms," *... -Based AI Agent ...*, 2023, 1–8, https://aichildinteraction.github.io/preprint/AIAIC23_paper_7399.pdf.

[82] Lucas Kohnke, Benjamin Luke Moorhouse, and Di Zou, "ChatGPT for Language Teaching and Learning" 54, no. 2 (2023): 537–50, https://doi.org/10.1177/00336882231162868.

highlighted that AI provides students with a linguistic safety net, allowing them to focus on delivery rather than the fear of miscommunication.

Futhermore, to maintain a comprehensive and transparent analysis, it is essential to address why a minority of respondents 2 out of 14 students did not experience ChatGPT as a Possibility Engine. According to the interview data, these two students did not utilize the AI to rephrase or simplify the qualitative research jargon. One student expressed a strong preference for relying exclusively on the exact wording provided in the lecturer's module, fearing that AI-generated simplifications might alter or dilute the fundamental academic meaning. The other student opted to manually interpret and translate the concepts without AI assistance, exhibiting skepticism toward the AI's accuracy in a highly specialized qualitative context. Consequently, by actively avoiding the tool for linguistic modification, the AI did not function as an alternative phrasing generator for them.

However, this adapted role also created a conflicting dependency. While having multiple simplified explanations from the AI increased students' initial confidence to speak, it also weakened their trust in their own ability to phrase ideas independently. Because the AI's sentences were perfectly structured, students started doubting their own skills in expressing concepts. Student 3 (LN) clearly demonstrated this tension:

> **LN16 interview data:**
> *"Because I got this from ChatGPT, it can't be wrong, but again, usually when I want to explain it using my own language, it actually makes me less confident."*

(Full, original and other interview results can be seen in the appendix section)

In this situation, students did not fully internalize the qualitative concepts; instead, they relied on the AI's phrasing to appear fluent. When the AI-generated script was unavailable, their confidence dropped sharply. This dependence on the tool for thinking and expressing ideas supports Grassini's warning that instant AI explanations can lead to superficial learning, where understanding is fragile and borrowed from the machine rather than built through the student's own cognitive effort.[83]

In conclusion, the Possibility Engine role was very effective in helping students reword abstract Qualitative concepts into clear language for Jigsaw peer teaching. It acted as a fluency booster, enabling students to communicate more confidently in group discussions. However, it also created a dependency on the AI for phrasing, showing that while AI can provide alternative ways to express ideas, it cannot replace the deep thinking needed to truly understand the material.

[83] Grassini, "Education Sciences Shaping the Future of Education : Exploring the Potential and Consequences of AI and ChatGPT in Educational Settings."

CHAPTER V

CONCLUSION

A. CONCLUSION

This chapter presents the conclusions drawn from the findings and discussions regarding the integration of ChatGPT 3.5 in the Jigsaw learning method within the Qualitative Research Method course. It also provides practical suggestions for students, lecturers, and future researchers.

1. The Step by Step involvement of ChatGPT 3.5 in Jigsaw Learning Method

The researcher concludes that students used ChatGPT mainly in the planning and preparation stage. Because of language difficulties, they used it to simplify difficult academic texts. It helped them understand the material and prepare explanations. However, most students did not check the accuracy of the AI's answers. They trusted the simplified explanation without verifying it with textbooks or journals. This created a risk of misunderstanding the concepts.

ChatGPT increased students' confidence before teaching their peers. But during Home Group discussions, using AI for instant answers reduced natural interaction. Some students paused discussions to consult ChatGPT, which weakened the principle of positive interdependence in the Jigsaw method.

2. The Roles of ChatGPT 3.5 in Jigsaw Learning Process

ChatGPT 3.5 in this study mainly functioned as a support tool rather than a tool for deep critical thinking. It mostly appeared as a Possibility Engine, helping students change complex academic language into simpler and more understandable expressions, and as a Study Buddy, giving reassurance and increasing their confidence before teaching peers. However, this support also created linguistic and judgment dependency, as students became less confident in expressing ideas independently.

In addition, ChatGPT functioned as an Exploratorium and Guide on the Side by providing examples and clarifications for abstract concepts, which helped students during preparation. Yet, because the AI handled much of the explanation process, students' understanding tended to be superficial and short-term.

Meanwhile, the roles of Socratic Opponent and Collaboration Coach were not identified, since students preferred quick and efficient answers rather than engaging in critical debate or collaborative problem-solving. This finding highlights a clear tension between the efficiency offered by AI and the interactive, discussion-based nature of the Jigsaw learning method.

B. SUGGESTION

Based on the findings, several suggestions are proposed:

1. For Students

a. Always check AI answers with textbooks or academic journals. Do not treat AI as the main source of truth.

b. Practice explaining the material without looking at ChatGPT. This will help build independent thinking and confidence.

2. For Lecturers

a. Set clear rules about when AI can and cannot be used. For example, do not allow devices during Home Group discussions.

b. Ask spontaneous follow-up questions to make sure students truly understand the material, not just repeat AI explanations.

3. For Future Researchers

a. Future studies can explore strategies that make AI function as a *Socratic Opponent*, so students are encouraged to defend and question ideas.

b. Research can also examine the impact of AI in other collaborative learning models to compare the results.

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APPENDICES

APPENDIX 1

INSTRUMENT

Blueprint Interview: Step-by-Step ChatGPT Involvement in Jigsaw Learning

(VALIDATED)

NO	ASPECT	INDICATOR	QUESTIONS
1	Use of ChatGPT 3.5 in the Jigsaw Learning Method within the Qualitative Research Method course	1. Voluntary GenAI use within the Jigsaw task	1. During your work on the Jigsaw assignment, did you independently decide to use ChatGPT to support your understanding of your expert subtopic? 2. Which version of ChatGPT did you use, and why did you choose that version for this course task?
		2. Goal setting and prompt planning	3. When you entered your expert group, what specific aspect of your assigned subtopic motivated you to consult ChatGPT? 4. What learning goal did you hope ChatGPT would help you achieve in preparing to teach your expert portion of the Jigsaw? 5. How did you formulate your initial prompt to ChatGPT so that it aligned with the expectations of the Qualitative Research Method course?
		3. Interaction and knowledge construction	6. Can you describe the sequence of steps you took when interacting

			with ChatGPT to study your expert subtopic? 7. What types of questions or clarifications did you ask ChatGPT to deepen your understanding of qualitative concepts such as themes, codes, research paradigms, or sampling techniques? 8. How did you assess whether ChatGPT's explanations were sufficient for you to perform your role as an "expert" in the Jigsaw group?
		4. Critical evaluation and revision	9. How did you evaluate whether the information provided by ChatGPT was accurate and aligned with the Qualitative Research Method materials taught in class? 10. Did you compare ChatGPT's responses with textbooks, lecture slides, or other required readings? If yes, how did this comparison shape your understanding? 11. Can you describe a moment when you had to ask ChatGPT a follow-up question because the initial answer was unclear, incomplete, or

			inconsistent with course concepts?
		5. Integration and knowledge transformation	12. How did you convert the information generated by ChatGPT into a form suitable for teaching your home group? 13. In what ways did you integrate ChatGPT's explanations with other course materials when preparing your expert teaching session?
		6. Knowledge transfer and responsive use	14. How did ChatGPT-supported knowledge influence the way you explained your subtopic to your home group members? 15. If your home group asked questions you found challenging, did you consult ChatGPT again for clarification? If so, how did this affect the group discussion?
		7. Learning reflection and future strategy	16. Looking back at the entire Jigsaw process, how did using ChatGPT influence your overall understanding of qualitative research methods? 17. What aspects of ChatGPT use were most helpful or least helpful in completing your expert role and

			supporting your home group? 18. If you were to participate in another Jigsaw assignment, how would you adjust your use of ChatGPT to improve your learning process?

Validation Notes:

The validated version makes the interview guide clearer and easier to follow. Some questions were rewritten so students can understand them more quickly, and each question now matches the learning steps more directly. The wording is simpler, more focused on what students actually did with ChatGPT, and more connected to the Jigsaw activities. The flow is also improved so the questions move logically from deciding to use ChatGPT, to learning with it, checking its accuracy, and then teaching the group. Overall, the changes make the interview guide more organized, easier to answer, and more relevant for students.

Curup, November 29, 2025
Validator

Rizki Indra Guci, M.Pd.

Blueprint Interview: Roles of ChatGPT on Learning Process in Jigsaw

(VALIDATED)

NO	ASPECT	INDICATOR	SUB-INDICATOR	QUESTIONS
1	Roles of the Use of ChatGPT 3.5 in the Jigsaw Learning Method within the Qualitative Research Method course	Socratic Opponent	Critical Challenge and Deep Reasoning	14. Did ChatGPT push you to think more critically about abstract concepts? Provide a specific example. 15. During your Expert Group discussion, did ChatGPT ever challenge your initial interpretation of qualitative vs. quantitative questioning in a way that deepened your reasoning?
		Guide on the Side	Scaffolding Clarification	16. When trying to understand the idea that "the researcher is the key instrument," how did ChatGPT's explanations help you grasp the concept clearly enough? 17. Did ChatGPT help you distinguish

				inductive reasoning from deductive reasoning through its "guiding" explanations? How did you use this while teaching your Home Group?
		Exploratorium	Exploration and Concept Expansion	18. How did ChatGPT allow you to explore multiple definitions, examples, or author perspectives on your assigned qualitative approach? 19. After exploring concepts with ChatGPT, were you able to retain and explain them weeks later without assistance? How did this exploration influence your long-term understanding?
		Collaboration Coach	Group Coordination and Synthesis Support	20. During the Expert Group discussions, how did ChatGPT help

				your group structure your subtopic, divide tasks, or synthesize key ideas? 21. Did ChatGPT change how dependent you felt on your group members for understanding or organizing your expert material? Explain how. 22. Did ChatGPT help your Expert Group prepare a clearer, more structured explanation before returning to the Home Group? How did it influence your peer-teaching quality?
		Possibility Engine	Alternative Phrasings and Expression	23. Did ChatGPT help you rephrase methodological distinctions into clearer explanations for your peers? 24. When responding to difficult questions from Home

				Group members, did the alternative framings provided by ChatGPT help you explain concepts more confidently?
		Study Buddy	Self-Assessment and Readiness Check	25. Were there moments where ChatGPT helped you realize you didn't fully understand a concept before teaching it, prompting further review? 26. After using ChatGPT, do you feel more capable of applying qualitative concepts independently, or do you still rely on it for reassurance?

Validation Notes:

The validated version makes the interview questions clearer, more direct, and easier for students to answer. Several questions were simplified so they focus on what students actually experienced when using ChatGPT during the Jigsaw activity. The structure is also more organized: each question now clearly matches the key concepts like group collaboration, understanding difficult qualitative ideas, cognitive load, motivation, and long-term learning. The wording is more student-friendly and avoids overly technical phrasing, while still keeping the academic meaning. Overall, the changes make the interview guide smoother, more logical, and much easier for students to understand and respond to.

Curup, November 29, 2025

Validator

Rizki Indra Guci, M.Pd.

Blueprint of lecturer interview:

Verification of Jigsaw Learning Method Implementation and ChatGPT 3.5 Policy
(VALIDATED)

Focus Area	**Theoretical Basis**	**Questions**
Opening Narrative	Collaborative Learning (Johnson & Johnson, 2009; Aronson & Patnoe, 2011)	10. To begin with, could you tell me in general terms how you teach the Qualitative Research Methods course this semester? For example, the teaching methods you use, how you structure the class, and anything you think is important for me to know.
Specific Focus on Jigsaw	Collaborative Learning (Johnson & Johnson, 2009; Aronson & Patnoe, 2011)	11. In this course, do you use the **Jigsaw** method or a similar collaborative method where students are divided into small groups, each group studies a different topic, and then they teach each other? If yes, could you tell me more about how you apply it in this class?
Process Description of Jigsaw	Collaborative Learning (Johnson & Johnson, 2009; Aronson & Patnoe, 2011)	12. Could you explain in detail, from start to finish, how the stages of this collaborative learning/Jigsaw method work in your class? Starting from the first meeting when Jigsaw is introduced, the formation of "expert" and "home" groups, up to the final evaluation.
Content & Topics	Collaborative Learning (Johnson & Johnson, 2009;	13. What topics in Qualitative Research Methods did you assign to the "expert" groups? How did you decide the

	Aronson & Patnoe, 2011)	division of these topics among the groups?
Learning Resources and Expectations		14. When students study in their expert groups, what learning resources do you recommend or expect them to use? Do you explicitly mention or not mention AI tools in these expectations?
Technology Landscape		15. In this digital age, students inevitably use various technologies for learning. In this course, what have you observed about students' use of technology when working in their Jigsaw groups?
AI Tools Awareness		16. Recently, AI tools such as ChatGPT have become popular among students. What is your experience with this in this course? Have you observed, heard, or suspected that students use such tools while working on course tasks?
Policy and Stance		17. What is your policy or stance on the use of AI tools such as ChatGPT in this course? Is it allowed, restricted, or discouraged? Could you explain the reasons behind this policy?
Perceived Quality and Changes		18. While teaching with the Jigsaw method, have you noticed any changes in students' understanding, participation, or performance in recent semesters, especially in this era of AI tools? If yes,

		what kinds of changes have you observed?

Validation Notes:

The validated version makes the observation questions clearer, smoother, and easier for lecturers to answer. The wording was simplified so each question directly asks what needs to be verified about how the Jigsaw method is used and whether students might be using ChatGPT on their own. The structure is more organized, moving step-by-step from how the course is taught, to how Jigsaw is implemented, to the lecturer's view of technology and AI use. The updated version also removes unnecessary repetition and makes the expectations for each question more straightforward. Overall, the validated version feels more focused, more logical, and much more user-friendly for interview and observation purposes.

Curup, November 29, 2025
Validator

Rizki Indra Guci, M.Pd.

Blueprint Documentation Checklist:

Jigsaw Learning Implementation in the Syllabus of Qualitative Research Method Course
(VALIDATED)

NO	CRITERION	INDICATORS	EVIDENCE TO VERIFY	CHECK (✓)	NOTES/FINDINGS
1	**Content Divisibility**	Course content can be divided into expert-group segments	Presence of clearly separated topics across ≥ 8 instructional sessions (excluding introduction, exams, and final project)		List eligible weeks/topics
2	**Collaborative Learning Alignment**	Syllabus explicitly signals collaborative/cooperative pedagogies	Mentions of "Collaborative Learning," "Cooperative Learning," "Group Learning," or "Jigsaw Method" in the pedagogical approach section		Direct quote(s) from syllabus:
3	**Assessment Structure for Jigsaw**	Assessment design reflects individual accountability and positive interdependence	Grading components include identifiable percentages for participation, group work, and individual tasks/assignments		Detailed breakdown:
4	**Implementation Duration**	Adequate time allocated for at least one full Jigsaw cycle	Minimum of 8 weeks containing content suitable		Total eligible weeks: ___/16

			for expert/home group rotation		
5	**Technology and AI Integration Readiness**	Course materials allow or encourage technology-supported learning	Syllabus mentions technology use, online platforms, digital resources, OR does not explicitly restrict AI/ChatGPT use		Relevant statements/phrases:

Validation Notes:

The validated version makes the checklist much clearer and more practical to use. The criteria are written in simpler language so it's easier to understand what needs to be checked in the syllabus. Each indicator is now more direct, and the evidence sections are more focused, guiding the reviewer on exactly what to look for, such as topic division, collaborative learning terms, assessment breakdown, duration, and technology use. The structure is more organized and avoids overly technical phrasing, helping users quickly identify whether the course supports the Jigsaw method and AI integration. Overall, the updated version feels cleaner, more logical, and more user-friendly.

Curup, November 29, 2025

Validator

Rizki Indra Guci, M.Pd.

APPENDIX 2

DATA INTERVIEW

Wawancara Dosen (MRG) 19 Januari 2026 09.05

- Researcher: Assalamualaikum Warahmatullahi Wabarakatuh Waalaikumsalam Warahmatullahi Wabarakatuh Good morning Mr. Gucci, thank you so much for making time for the interview session today, and I really appreciate it sir.
- MRG: Alright, so, with pleasure.
- Researcher: As you know sir, for my thesis I did research titled The Analysis of ChatGPT 3.5 Involvement in Implementing Jigsaw Learning Method in Qualitative Research Method Course. The purpose of this interview is to triangulate my data and get your perspective as the lecturer on how the jigsaw is implemented, and your observation regarding students' use of AI tools. So sir, this interview should take about maybe 15 until 20 minutes, more or less maybe and with your permission, may I record this conversation sir, so I don't miss any details?
- MRG: that would be fine by me.
- Researcher: Okay, great. Let's start with the general teaching context sir. So, to begin with, could you please tell me in general terms, how you teach the qualitative research method course in the 6th semester? For example, the teaching methods you use, how you structure the class, and anything you think is important for me to know sir.
- MRG1: Alright, so in the qualitative research method class in the last semester, so as long as I remember, I applied this approach called collaborative teaching, or some people call that by communicative teaching method probably. So, a simpler term for that is jigsaw method. So, the main reason why I applied this collaborative learning method was that because in a speech teaching approach, so the lecturer tends to talk by himself or herself, so the focus is all on the lecturer. So, the communication does not

really work on that approach in my opinion, because it's just one way. So, it's just a one way communication, there is no interaction, or there is just a limited interaction in that approach. And meanwhile, in a presentation, let's say that some people love to use PowerPoint presentation or any other kind of presentation, but the thing is, as long as I know, the only busy students or the only busy part is the one presenting materials, while the other students are not paying that much of attention. So, it seems like the one having fun is just the presenters in front of the classroom. So, that was the main reason why I applied this collaborative teaching, so that everybody is busy in that class. So, there is no way or there is no chance for them to daydream, to get busy by their own stuff, because as I always say in my collaborative research method class, your understanding will determine the other people's understanding. So, if you do not understand that material, your friends may also miss the point. So, that's why I apply this teaching approach called collaborative learning in a teach-all learning method. So, yeah. In the very first class, before we begin the discussion, I always split the class, or I will always divide the students into some small groups. It could be three or four groups. It depends on how many students we have in that classroom. And then I will, let's say, split or divide the learning materials into four sections or four sub-sections. It depends on how many groups we have on that day. So, every different group will be responsible for different sub-sections or different sections. And we call this by host members and host groups and member groups. So, after they use some minutes to understand their own materials, they will need to visit the other groups to, let's say, to teach or to transfer their own understanding. And then they're going to get the other group's materials. So, it seems like a transaction between them. So, it seems like I will tell you our materials as long as you do the same with our groups. So, it seems like this kind of transaction between them. So, their understanding will determine their friends' understandings. So, that's what I usually do in my class. The thing is, as a disclaimer, I do not think this approach really works in a practical course because another reason why I do

this is because qualitative research methods and also instructional planning class tends to be full of eras. So, it would be so boring if I just do the speech in front of the classroom or just watch the presentation by some group of presenters on that day. So, that's the third version of that, I guess.

- Researcher: Okay. It was a great instructional learning method, sir. And I totally agree with what you have been taught, the planning and also the reason behind why you structure such a jigsaw learning method rather than a basic learning method like a presentation or a basic way. So, that was great. And the second one, we're moving into a specific focus on jigsaw, sir. So, in this course, Gane, do you use the jigsaw method or maybe a similar collaborative method where students are divided into small groups that each group studies a different topic and then they teach each other?If yes, could you tell me more about how you applied it in this class, sir?
- MRG2: Oh, so the question is about whether I applied the jigsaw or something like jigsaw. Okay. So, to my limited knowledge, jigsaw teaching method or jigsaw learning method tends to be like the class is split into some small groups and then they're going to have different materials and they're going to share with each other what they have or what they already understood about their materials. So, but the thing is, we have a lot of variations or some other terms for this. So, back then, we know this one by jigsaw. And then if I'm mistaken, we have another term for this. They got like think-pair-share teaching method. So, it means that you got to think about your materials and then the teacher will pair you with your partners and then you are going to share this with your partners. So, that's why they call that by think-pair-share. And if you have some, let's say, some visuals or some displays of your materials, the name would be different. So, they're going to name this by gallery walk. So, it seems like the principle is kind of similar or the principle is the same that you have to understand some materials and then you're going to be paired into some peers or some groups. And then you're going to share this with the other classmates. So, the thing is, or the short version is that the principle is the same, but the variations

will determine the names of that approach. So, I think you are already familiar with these terms. It seems like think-pair-share, jigsaw, and then gallery walk with a lot of names for this. But the principle goes the same.

- Researcher: All right, sir. I got all the points. So, it means that you not just also apply the jigsaw method, but there is a similar collaborative method called TPS, think-pair-share, but it's quite similar, but it has a different jigsaw method.
- MRG3: Yeah, but the thing is, if I'm mistaken, the think-pair-share one starts with some problems. So, it means that the teacher throws their problems and then the students need to think about how to solve them or how to write problems. Then they're going to be paired and then share their understanding. But the thing is, just like what I told you before, it's just the details will lead us to another different name. But the one we used in one of them seems like tends to be closer to the jigsaw teaching method.
- Researcher: All right, sir. Thank you for the explanation. So, right now, speaking of process of description of jigsaw, sir, could you explain in detail, sir, from start to finish, how the stages of this collaborative learning or jigsaw method work in your class? Maybe starting from the first meeting when jigsaw is introduced, the formation of experts, and how groups up to the final evaluation. Okay.
- MRG4: So, from the very beginning of the classroom, I tend to split the class or the students into some groups. It could be four, it could be five groups or five small groups. It depends on how many students we have in that room. And then the group division or the group splits also depend on how many sections or subsections we have on that day. So, let's say that when we talk about the research methods, let's say we're talking about the general overview of research methods. And then we're talking about the difference between qualitative and quantitative research. And then, let's say that we just have three sections or subsections of the materials for that day. So, I will split the class into three groups, or it could also be six groups. Yeah, it depends on how many students we have in that class. Because if I

just split the class into three groups, so we have a lot of students, it would be so crowded in that room. So, it depends on the subsections and the students' numbers in that class. And after that, the group divisions would be decided by the random spinning wheel, probably, or I would call some, let's say that for the difficult materials, I tend to decide the leaders for the groups that I run. Or that I think are potential to lead the group in that class or potential to lead the discussions. So, after that, I would ask those leaders to point or to call their trusted members, or it could also work the other way, where the members chose their trusted leaders. And right after that, I would give or I would give them the handouts or the printed handouts, printed materials, depends on their topic of discussions. And right after that, I would instruct the students to discuss or to understand their materials for 15 minutes, 20 minutes, or 30 minutes, depending on how long the materials to understand, or it depends on how many points to understand. And right after that, we're going to this next section where the students or some students need to go have a visit to the other groups to share their own understanding and also to get the feedback or to do some kind of transaction where they're going to hear the explanation from their friends about their materials. And after this discussion is over, we're going to go to the next section where the students have to, let's say, retell or students have to share the whole class about what they already understood about their materials or the results of their discussions before. And this, let's say that the decision of who needs to speak or who needs to retell or who needs to re-share their understanding is decided randomly. So it could be by spinning wheel. It could be by random numbers, number calls or anything like that. And right after that, we're going to have into the feedback section where I will, where I would give the students some clarifications or some further explanations about their misconceptions, probably, or some incomplete interpretations or some mistaken understanding of their materials. And right after that, if we still have enough time for that, I usually throw a quiz. It could be using Kahoot, or it could be using Bluekit, or it could be using quizzes or the other

platforms. But if we do not have enough time for that meeting, I will postpone the quiz until the next meeting. And before or after we discuss another topic on that day, I'm going to throw a quiz for the students, for the evaluators. So it will help me evaluate the students' understandings on that day, whether they paid attention to their friends' explanations or whether they were busy with their own stuff on that day. So that was pretty much what I did.

- Researcher: Okay, that was a complete stages of jigsaw learning method, sir. And that's such a structured learning method that already, that already used in qualitative research. So talking about content and topics, sirs. So what topics in qualitative research method did you assign to the expert groups? And how did you decide the division of these topics among the groups?
- MRG: Ah, so could you please repeat the question? So was that about what sections or what topics I gave to the expert groups? And what topic did I give to the home groups?
- Researcher: What topic that you assigned to the expert group and how did you decide the division of these topics among the groups, sir? Maybe it's not only by on yourself, it's not depending on yourself to decide the division, or maybe in the real fact, in the real phenomenon, the division of this topic among the groups, it's back to the student itself, sir. And the question is, how did you decide the division of this topic among the groups in the real situation, sir?
- MRG5: Okay, so, um, the thing is, everybody is in their expert. Let's say that one person actually has the dual role in that, in that moment. So let's say that you will be in the expert group and you will also be in the home group. So you have the dual role on that. Let's say that when you try to understand your own subsections, you were in your home group at that point. But when you are visiting the other groups or the other course, it means that you are going to be taking care of the responsibility by the expert group. So let's say that when you talk about your own material, so you are

in your own home group. But when you share the material, so you're going to be in that expert group. So it depends. So no one is having one single role only in it. So everybody is having the dual role. You could be in a home group and you could be in the expert group. So you just need to switch to that. Depends on what you are doing at that time. When you are listening, so it means that you are in your home group. But when you are sharing or explaining things, so you're going to be the expert on that time. So the topic decisions or the topic divisions is usually divided by random. So I sometimes use the spinning wheel or I sometimes use this, let's say that where the students need to call numbers or specific numbers or random numbers. So then I will give them some numbered papers, depending on the numbers. So let's say that we have the experience about this subject of the research. So let's say that it's supposed to be in a paper number one. So when the students call for mentions number one, so they're going to have that paper. There is no specific reason about what topic I give to the specific group. So it's just random things. So that was why we always had 30 minutes to 45 minutes at the end of the class to clarify everything. To make sure there is no misconceptions or misunderstanding or misinterpretations happen in the teaching and learning process. So if you're asking me about the reasons of the topic divisions, I could confidently say there is no specific reason for that because I did it randomly.

- Researcher: Okay, sir. So, sir, to clarify again, topics that usually you use in qualitative research method when you assign to the expert groups. Is there any specific topics that you assign to the expert groups in qualitative research method course?
- MRG6: Oh, about specific topics. So, independent of the syllabus. So let's say that as we know that in a qualitative research, I tend to split the whole materials into some chapters. So let's say that when we're talking about the introductions. So we're going to talk about the topics, research gaps, and the other, a lot of the other things. So let's say that this first group will give them about the topic, what topic we have, we should talk about in a qualitative

research. And also for the second group, I'm going to give them, for example, the phenomenon, what is a phenomenon in qualitative research. And then for the third group, we're going to talk about research gaps. So they need to understand really carefully about what qualitative research gap is. So at that point, they got to be the expert on their own materials or on their own topics. And then when they have to go to the other groups, those groups or those groups they're going is going to be the whole group at a time. So they're going to listen to the explanations about those materials. And right after that, they're going to be the experts when they share the materials. So that was pretty much about it. So if you are asking me about what topics I give to the expert groups, I would say that I gave a lot of topics to them. Because it depends on the syllabus we're using at that time. So just like what I told you before, when you are sharing things, you are going to be the expert at that time. But when you are listening, so you're going to be the member of the home group at that time, because you were listening to the explanations from someone coming to your group. But when you are sharing or explaining things, so you're going to be the part of the expert group at that time. Because you are the expert in that subsection of materials.

- Researcher: Right, sir. That was a clear, that was a very clear explanation. And right now we're going to talk about learning resources and expectations. And we're going to including AI discussion into the next question. So sir, when your students study in their expert group, what learning resources do you recommend or expect them to use? Or maybe do you explicitly mention or not mention AI tools in this expectation, sir?
- MRG7: Oh, I see. So this question sounds, this question is actually pretty tricky, by the way, because let's say that when I applied this collaborative learning method for the very first time, the research methods, I mean, for the very first year I taught this collaborative research method, I said that I put a strict limit to the use of browser or to the use of AI in that class, but the outcome did not work. Because let's say that we have a lot of different resources. We have a lot of books out there and we got a lot of experts

talking about the qualitative research approach. So for the very first year when I put a strict limitations to the use of AI or to the use of internet when they are understanding their materials, it seems like I put a limited knowledge in their mind. So that was why in your period or when I was in your class, I did not put any limitations to the use of AI or to the use of browsing as long as it supports your understanding. Because the thing is, when I put such a strict limitations to the use of AI or to the use of internet browsing, I was just afraid that, let's say that some experts may have different opinions to the other experts, or they may have the other different arguments. So that was why I opened the opportunities for you to use AI or to use internet browsing when you are trying to understand your own materials, because it would give you guys some more chances about another paradigm or another different approach from the other experts, as long as you understand those materials you got from the AI or from the internet. That's it, probably.

- Researcher: All right, sir. Okay, sir. I got all the point that I tried to conclude that you try to give a strict limitation on AI, but in our period, you're afraid of that exploration of students in the expert group will be limited. That's why you didn't apply a strict limitation into AI tools, because we know that we can take a lot of resources regarding into book or some kind of things that not always depend on AI tools again and again. Is it look like right, sir?
- MRG: Yeah, that sounds correct.
- Researcher: Okay, thank you, sir. So moving into technology landscape. So in this digital age, students inevitably use various technologies for learning. So in this course, what have you observed about students use of technology when working in their jigsaw groups? Because as we know that jigsaw has the old orthodox that jigsaw, all orthodox never use combined technology before. But in this digital age, there is a phenomenon when a lot of students try to explore a lot of AI tools. So in your class, what have you observed about students that use of technology, especially when they working in their jigsaw groups?

- MRG8: Okay, so the original or the initial applications of jigsaw teaching method is about a mere focus or a sole focus into the paper or into the materials you have on your own hand. So it means that you just need to focus on what's given to you at the time. So let's say that if you are given or if you are handed a paper by your teacher, so you just need to focus on that paper only. So that was the original or that was the initial applications of jigsaw teaching method. But the thing is, as I told you before, we got so many experts about that talk about qualitative research approaches out there. So that was why in my thought, I just thought that if I put the limitations for the students to access the AI, I'm afraid that there could be a far better reference out there that they could access by using AI or by using the internet. So that was why I would say that I could just bring the three different references or the three different experts at that time. Maybe the students have already read some more interesting arguments from the other experts or some more updated references. So that was why, starting from your period, I did not put that strict limitations on the AI, because it could give a better, it could open a better paradigm for me. Let's say that I could bring some references to the students and also the students could bring some fresher ideas into the class. So that was why I did not put a strict limitations for that. But the thing is, if your explanation sounds so bookish or sounds so textbook, so I'm gonna say that I'm gonna face them with some follow-up questions. So it will inform about their understanding whether it was textbook, whether it was fully textbook, or whether they really understand what they're talking about at that moment. So that was why I did not put a strict limitation starting from your period of semester.
- Researcher: Okay, sir. Thank you. It means that even if you give them the freedom to use technology, but as a lecturer, you still try to put a lot of awareness about how they're understanding, even if you give them the freedom. But you said that before, you chase them with additional questions if their explanation sounds like a textbook or something. That's such an incredible ways, learning method, ways to chase their understanding, sir. So

talking about AI tool awareness, sir, recently AI tools such as creativity have become popular among students. So what is your experience with this in this course? Have you observed, heard, or suspected that students use tools while working on course textures?

- MRG9: Okay, so about the use of the creativity or the other AI-based platforms, so I could say that I have no problems with the use of these platforms as long as you use these platforms as the tools to support your work or to support your understanding. But the thing is, some students tend to rely or tend to be really dependent on this platform. So let's say that they just refer or they just read what the AI tools tell them. So that was why I always give the students I gave the students so many follow-up questions to make sure whether they understand or whether they just read what they got from the AI tools. So if the question is about whether I suspect some students to depend fully on the AI-based tools, yep, I found a lot of students did that. So they just ask the AI tools or they, let's say that they just ask the GPT about the materials and then they just read what's on their screen right at that time. So that was why we have a lot we have variations in their final score because some students understand, I mean some students use the AI or the GPT to help them understand the materials, but some other students just use the AI to do the work. So they just need to read what's on their screen at that time. So that was why follow-up questions were always there at the end of the class or at the end of the meeting.
- Researcher: All right, sir, I got a point. It means that follow-up question is really needed in this occasion where students, a lot of students trying to use AI tools and it is easier. So moving on policy and stance, sir. In your class, what is your policy or stance on the use of AI tools such as GPT in this course? Is it allowed, restricted, or discouraged? Could you explain the reasons behind this policy, sir?
- MRG10: Okay, so we have discussed about this in the prescription actually. I did not put any restrictions, so you could use chat GPT, you could use internet browsing, as long as you use these tools or these platforms to help

you understand the materials, not to do your work completely. So some students tend to sound so bookish or sound so textbook when explaining their materials. So that was why I suspected them to depend on the activity or completely. So that was why they tend to avoid some follow-up questions from me. But some other students who used chat GPT to help them do the work or to help them understand the materials, they were not afraid of the follow-up questions because they understand the concepts. They have the understanding because they use the AI to support them or as the supporting facilities only. So if you are asking me about the policy for the use of AI, it means that I, as I told you before, there was no restriction for that. You could use the AI, you could use chat GPT, you could use the other AI-based platforms, or you could use internet browsing, or you could use another browser that you want to as long as you would understand or as long as it helps you get the point of those materials. So it would be fine by me, totally.

- Researcher: Okay, sir. I got all the point. I got all the point of your explanation. So we're moving into perceived quality and changes, sir. So from applying the jigsaw learning method from the very first stages into the final evaluation, sir, while teaching with the jigsaw method, have you noticed any changes in students' understanding, participation, or performance in the recent semesters, especially in this era of AI tools? If yes, what kind of changes have you observed, sir?
- MRG11: Okay, so based on my observations on the classes that I taught using this jigsaw method, so in my point of view, the class looked more active than the speech approach, and also because some students who tend to be, who tend to remain silent in that class could not do the same at that moment, because they're having this burden, or they're having this responsibility in their hands, because they need to understand the material so that their friends will understand those materials. So in my point of view, the class seems more active by using this jigsaw teaching method, and also some students tend to be easier when their partners explain the materials for them, because let's say that when somebody older or when the lecturer or

their teacher explain the material using their language or using their own regions, some students tend to be so difficult to understand or to get the point, but when their friends on the same pages with them explain the same materials, they tend to understand those points easier. It means that because we could say that explaining things is more relatable for them, or they're using the more relatable language with their friends, so that was why I used this jigsaw learning method, because when you discuss, in a discussion between the expert and the home groups, you could do that casually, or you could do that freely and not in formal context. So by using that, the understanding could be better in my point of view. Yeah, so the thing is about the simpler term is that the students are going to understand the materials easier by using this jigsaw learning method, because they do not need to fear the materials in a formal way, because they could just like to do casual conversations with their friends, but the conversation is about these materials and what the difference is.

- Researcher: Okay, sure. Okay, sir. I got all the point of your explanation, sir. So you mentioned that your students understanding participation or performance is getting better and easier by using AI tools and it is easier. But back then, all of the questions are, I have actually additional questions, but these questions regarding my finding, because I already interviewed about 14 students, and I found some uniqueness information regarding to this researcher. First, is there a question that asked my friends, do ChatGPT push them to think critically? And unfortunately, from 14 informant, they said that ChatGpt do not push them to think critically, because they feel like the answer from ChatGpt, it's already been given, it's already simpler. So they just take the explanation from ChatGpt without confirming, without debating again, what they have had in their knowledge and something. And talking about role of ChatGpt, sir, there is some role from six roles, there is some roles that miss from these occasions or from this phenomenon. For example, is in jigsaw learning method, that collaboration coach and with friends is really important. But unfortunately, between the phenomenon,

between jigsaw, among jigsaw, ChatGpt and qualitative, the essential of jigsaw learning method that one of that is collaboration is missing from these parts, sir, because they stated that they feel they would be independently to ask ChatGpt rather than building communication and discussion with their friends, because they feel that their friends might be confused at the same time. And the very last one is, sir, there is a role called study body, but I still confusing to determine if does, is this ChatGpt really can could call as a study body? Because in the end of the question, is this the questions that do you feel that you will able to apply the qualitative method by yourself? Or do you still need ChatGpt to reassurance your understanding? And all of them stated that they still need ChatGpt to ensure their understanding. So, it feels like they understand, but they could not perform or confidence without the green light of AI tools, especially ChatGpt.? And from that, all the explanation, sir, what do you think as the lecturer who taught the qualitative research method by applying jigsaw method, sir? That's it, sir.

- MRG12: Okay, so for the very first point is that about whether ChatGpt could help them think critically. And a lot of students said or thought that ChatGpt did not really help them think really critically. So, that could be the case. That could be the case. I could be, I could agree with that. Because as we know that ChatGpt in that qualitative research method class did not really help them to think critically, but help them get some more additional references.So, the case would be different if I asked the students to solve a case or solve a problem by using ChatGpt. So, at that point, ChatGpt could help them think critically. But in the research class, we are not breaking the case.We are not solving the problem. We are not addressing the issue. So, that was why ChatGpt did not really work to help them think critically at the moment. Because they are not solving something. They just need to clarify whether they need additional points of materials or whether they do not really need additional materials or additional information regarding those materials they have on their hands. And also about whether the

students still need ChatGpt or to listen carefully to their friends. It could be the case because let's say that ChatGpt tends to give you the similar answer because they're working on a strict database or they're working on a good database. Meanwhile, your friends could, let's say that, fill the materials in completely at that point. Or, let's say that they're still struggling when they're explaining things to you. So, this one is the difficulty or this one is the challenge in, let's say, combining ChatGpt or combining the AI tools and Excel Learning Map. Because they tend to depend on the use of AI rather than asking their friends or rather than to be involved in real conversations or real interactions with their friends. Meanwhile, in the previous year, while I put strict limitations to the use of AI, the students tend to listen really carefully to their friends' explanations because that was the only source of information for them. But the thing is, if those strict limitations were applied in the classroom, they're going to have limited references also. So, that was why this is a never-ending challenge in a jigsaw learning combined with AI use in a classroom. So, yeah, that could be the case. So, yeah, because if it's like what I said before, if we limit the AI, the references would be limited. But if we use or we allow the students to use the AI, they would depend on the use of AI rather than to be involved in real conversations with their friends. All right, sir. So, that was it.

- Researcher: Okay, sir. All right. So, that covers all the main questions that I want to ask regarding the phenomenon in Qualitative research method course. I'm sorry to add additional question in the last session, sir. So, is there anything else regarding the jigsaw method or student technology use that you think is important for my research that we haven't discussed yet, sir?
- MRG13: So, I don't think so. I think that was already covered up in your questions before. So, as we know that as a conclusion is that the combinations between AI and jigsaw learning method remains a challenge until today because jigsaw is about real conversations or real interactions. Meanwhile, when AI is involved, those real or the actual conversations

could be disrupted by the use of AI. So, maybe next time I'm going to think about the limitations of the use of AI probably, and I'm going to bring a lot more references into the classroom. So, they're going to be focused on that paper on their hand, and nobody is allowed to use AI at that moment. So, that the actual conversations could go well, as I expected, probably. We're going to see that for the next period.

- Researcher: Okay, sir. So, from this interview brings you into a conclusion that maybe for further learning method that you will be using jigsaw method, you will consider some kind of policy regarding to use AI tools and you said that before you will try to put a lot of resources. So, there is no students will allow to use AI or jigsaw learning method context or because as you tell before jigsaw method and the use of jigsaw is totally different because jigsaw connected to the real conversation rather than conversation with technology. Is it right, sir?
- MRG14:Yeah, that's correct because when they are allowed to use AI, it's like they have the options whether or not they need to listen to their friends or whether or not they have to use the AI because they have the options for the source of information. Meanwhile, when AI is restricted, they are going to be having the only source of information would be their friends. So, whether they like it or not, they have to listen to their friends. I'm going to consider about that for the next semester, probably.
- Researcher: Okay, sir. We're going, we're having, finally we are going into the end of our session and I'd like to say big thanks to you, sir, for giving your time for this interview and thank you very much, Mr. Gucci. Your insights are incredibly valuable for verifying the data for my thesis and I will proceed to transcript this interview for my analysis. And, sir, have a wonderful day, sir. That's it. Thank you so much, sir. Okay, can I close this interview, sir?
- MRG15: Yep, that's fine.
- Researcher: Okay, thank you so much, sir. Have a wonderful day, sir. Thank you, sir. Thank you.

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Interview 1: Step-by-Step ChatGPT Involvement in Jigsaw Learning

- Researcher: Waktu kamu ngerjain tugas Jigsaw kemarin, kamu memang inisiatif sendiri buat pakai ChatGPT atau gimana?
- LA1: Oh iya, inisiatif. Karena dibandingkan yang lain, ChatGPT lebih bagus dari hasilnya. Jadi sangat memudahkan.
- Researcher: Kamu pakai versi ChatGPT yang mana, dan kenapa milih versi itu buat mata kuliah Kualitatif? Ada alasan khusus nggak?
- LA2: Pilih ChatGPT yang versi... 3.5 karena gratis dan cepat.
- Researcher: Oke.
- Researcher: Waktu kamu udah masuk kelompok ahli, bagian mana nih dari subtopikmu yang bikin kamu langsung merasa, "Ah, kayaknya aku harus tanya ChatGPT nih?"
- LA3: Kalau misalkan aku dapat, misalkan aku bagian yang ciri-ciri atau apa tuh kan, nah kalau di hand-out tuh kan, apa ya, masih kurang jelas lah. Aku juga nggak bisa ngejelaskan ke kawan-kawan dengan bahasa yang mungkin sederhana. Jadi aku tanyakan ke ChatGPT, biar menjelaskannya mudah dan kawan-kawan tuh ngerti.
- Researcher: Sebenarnya kamu berharap ChatGPT bantu kamu mencapai tujuan belajar apa sih waktu itu? Or Kamu berharap ChatGPT bisa bantu kamu mencapai tujuan belajar apa sih?
- LA4: Kalau dalam ChatGPT tuh, tujuan saya menggunakannya tuh biar, materi yang dipelajari itu bisa benar-benar mudah diingat. Terus kalau misalkan aku bagikan ke orang lain, share di kelompok itu, mereka tuh bisa nangkep juga dengan cepat. Dibandingkan aku nggak pakai ChatGPT, terus

ngomongnya ke mana-mana gitu kan, jadi mereka nggak menangkep poin inti yang nggak aku sampaikan.

- Researcher: Waktu bikin prompt pertama kali, kamu nyusunnya gimana biar sesuai sama materi Metode Penelitian Kualitatif yang dipelajari di kelas? khususnya buat persiapan ngajar di kelompok asal? Gimana cara kamu bikin kalimat pertanyaan (prompt) awal ke ChatGPT biar jawabannya itu nyambung dan sesuai sama ekspektasi mata kuliah Metode Penelitian Kualitatif ini?
- LA5: Pertama sih, biasanya aku potokan dulu atau tidak, di-scan di Google itu kan, dapat tulisan-tulisannya baru masukkan ke ChatGPT, terus berikan penjelasan, misalkan aku tuh tentang ciri-ciri. Nah, tapi ini dalam kasus mata waktu kuliah kualitatif. Jadi, biar dia sesuai dengan konteksnya juga pas menjelaskan. Jadi, dari ChatGPT tuh jawabannya benar-benar yang kita, apa ya, yang pas lah. Sesuai dengan step yang di-hand out, terus nyekembangkan lagi dengan bahasa-bahasa yang mudah dimengerti, mudah dijelaskan juga.
- Researcher: Oke.
- Researcher: Bisa ceritain nggak, urutan langkah yang kamu lakukan waktu mulai tanya-tanya ke ChatGPT buat memahami subtopik kamu itu? Kamu mulai dari mana, terus lanjut ke mana?
- LA6: Mulanya dari foto itu tadi, scan, masukkan ke ChatGPT dengan prompt yang tadi. Nah, kalau hasil dari prompt itu kan muncul, ada nih yang tidak paham atau bahasanya tuh kurang dimengerti, atau maksud dari ChatGPT-nya apa nih, terus tanyain lagi. Apa yang benar-benar pas? Dan kalau misalkan ada yang nggak bingung lagi, benar-benar dipastikan lagi, ini seluruhannya tuh benar, poin subtopik aku, ciri-ciri tentang misalkan case tadi itu benar, jadi satu poin itu. Jadi jawaban akhir ChatGPT itu, dari awal itu udah diperbaikinya, dari revisi-revisi sampai hasil final. Itulah yang aku ceritakan ke kawan kelompok.

- Researcher: Oke. Jadi butuh beberapa prompt lagi ya, sebelum dapet hasil yang final yang pas.
- Researcher: Pertanyaan atau permintaan klarifikasi seperti apa sih yang kamu ajukan ke ChatGPT, terutama buat konsep-konsep kualitatif kayak tema, koding, paradigma penelitian, atau teknik sampling atau jenis jenis pendekatan kualitatif?
- LA7: Yang sering, biasanya tentang banyakan ke ciri-ciri ataupun misalkan ada pengertian itu lebih didetailkan. Kalau kita kualitatif itu, kemarin kan pendekatan ya, ke study, apa saja itu. Itu dari subtopik aku, misalkan ciri-ciri, aku dalam itu dulu. Tapi kalau misalkan ada yang kelompok lain menjelaskan dan aku tidak paham, aku tetap nanya juga di situ.
- Researcher: Setelah dapat penjelasan dari ChatGPT, Gimana caramu memastikan kalau penjelasan ChatGPT itu udah cukup bagus dan memadai buat kamu jelasin lagi ke teman-teman di kelompok?
- LA8: Kalau sudah ketemu versi finalnya itu, biasanya menjelaskannya mudah, terus bahasa-bahasanya itu juga mudah dipahamikan. Tidak ada yang ambigu atau jarang kita temui. Jadi bahasanya udah pas, terus mudah dipahami juga, dan dari hasil revisi-revisi itu, catatanya udah pas, ini pas untuk dijelaskan. Tidak ada lagi yang, kayaknya ini apa sih maksudnya, itu tidak lagi. Tidak ada lagi yang membingungkan.
- Researcher: Waktu kamu dapat jawaban dari ChatGPT, gimana sih cara kamu ngecek atau memastikan kalau info itu akurat dan cocok sama materi Metode Penelitian Kualitatif yang diajarkan di kelas?
- LA9: Tadi dari hasil PROM itu kan, kalau misalkan ada yang masih kurang paham, ditanyain lagi. Tapi dengan minta dari sumbernya, jadi cek juga dari sumber yang dikasih sama ChatGPT itu, ini benar enggak sih sumbernya dari situ? Untuk memastikannya benar-benar. Dia itu dari buku juga, dan pas di PROM yang, kayak misalkan, case tadi, benar-benar di sana. Dan sumbernya juga ditengah.

- Researcher: Kamu sempat bandingin nggak sih jawaban ChatGPT sama buku, slide kuliah, atau bacaan wajib lainnya? Kalau iya, proses perbandingan itu bantu membentuk pemahamanmu kayak gimana? Atau pengaruhnya apa ke pemahaman kamu?
- LA10: Kalau hasil perbandingannya, kalau lebih ke ChatGPT, karena buku itu dari bahasa saja itu kurang, mungkin mereka kan buku itu ilmiah, jadi baku, mungkin sering ada kata-kata yang tidak mudah untuk dipahamkan, atau jarang digunakan. Kalau ChatGPT itu dengan bahasa yang sederhana, jadi lebih paham aja di sana.
- Researcher: Jadi membandingkannya lebih ke prosesnya di ChatGPT, bukan dengan bentuk fisik lainnya?
- LA11: Kalau isinya bisa lah. Kalau misalkan dari buku itu, pas enggak sih dari ChatGPT itu? ChatGPT itu kan secara umum dari internet itu kan, jadi untuk memastikannya, inti dari itu itu sama. Cuman bahasanya itulah. Untuk pemahaman itu kan lebih paham di ChatGPT.
- Researcher: Pernah nggak kamu harus balik lagi nanya ke ChatGPT karena jawabannya kurang jelas, kurang lengkap, atau beda sama konsep yang diajar dosen dimata kuliah kualitatif ini? Coba ceritakan satu momen itu!
- LA12: Pernah sih. Itu kalau misalkan, padahal sudah dikasih kan, mata kuliahnya kualitatif, terus lagi bahas case study. Terus dia jawabkan, apa ya, beda lah. Kok pembahasannya tidak mengarah ke kasus yang kita ajukan di prom? Terus aku tanya lagi sih. Biasanya kalau aku tanya lagi itu, ini yang saya tanyakan ada di pelajaran case study tentang ciri-ciri atau apa. Terus dia jawab lagi, oh maaf, itu baru dijelasin sesuai dengan yang kita minta.
- Researcher: Informasi yang kamu dapat dari ChatGPT itu, bagaimana caranya kamu ubah jadi bentuk yang kayak gimana biar enak waktu kamu ajarkan ke kelompok asalmu? Jelaskan bagaimana!

- LA13: Kalau dari versi final itu, itu yang untuk disampaikan ke kelompok. Biasanya kan untuk menjelaskannya itu, kita nampakkan handoutnya mister itu juga. Cuma dari ChatGPT itu tidak benar-benar langsung ini nah hasilnya dari ChatGPT. Dari hasil final itu, misalkan poin 1 itu intinya apa sih? Itu aja sih yang diambil. Terus menjelaskannya dengan bahasa bahasa inilah, bahasa kita. Biar mudah paham juga. Dan kita menjelaskannya juga enak.
- Researcher: Selain itu, waktu nyiapin sesi ngajar sebagai ahli, gimana caranya atau bagaimana caranya kamu gabungin penjelasan dari ChatGPT dengan materi-materi kuliah yang lain seperti handouts di mata kuliah Kualitatif ini?
- LA14: Hasil dari final ChatGPT itu sambil pegang handout dari mister, tetap handout mister itu jadi acuan untuk menjelaskan. Ini ciri-ciri dari test tadi. Yang pertama ini. Terus aku jelasin juga penjelasan itu dari ChatGPT. Jadi tetap berpedulangan sama handout mister, tapi penjelasannya lebih mudah dari hasil ChatGPT tadi.
- Researcher: Jadi handout mister itu biar penjelasannya gak keluar ya dari yang sedang dibahas.
- Researcher: Menurut kamu, bagaimana pengaruh bantuan ChatGPT terhadap cara kamu ngejelasin subtopik ke teman-teman di kelompok asal?
- LA15: Pengaruhnya itu lebih baik dan terarah dari segi bahasanya ataupun penjelasannya. Karena kalau misalkan aku lagi gak nengok ChatGPT itu, tapi dari handout itu udah paham, oh intinya ini yang gak dijelaskan. Cuma dari bahasanya itu cak balibut dan kurang terarah sih. Banyak jeda kalau misalkan ada ChatGPT yang gak diomongkan itu langsung-langsung aja jedanya kurang terus berarti kan itu lebih apa ya, kita lebih paham terus orang juga tangkapnya itu enak pas penjelasannya.
- Researcher: Nah, kalau di kelompok asalmu ada yang nanya pertanyaan sulit, kamu sempat buka ChatGPT lagi nggak buat cari klarifikasi? Kalau iya, gimana dampaknya ke diskusi di kelompok kalian?

- LA16: Biasanya kalau ada pertanyaan yang sulit ya aku tanyakan ke ChatGPT lagi. Ini kan kalau misalkan di kelompok ini ya, urutan berasal dari urutan urutan menjelaskan yang siapa dulu nih, kalau misalkan yang aku duluan, terus aku dapat pertanyaan yang sulit ini apa namanya aku simpan dulu, kalian menjelaskan, aku cari jawaban, aku konfirmasi lagi, itu tuh jawabannya apa sih.
- Researcher: Jadi menurut anda, gimana dampaknya proses kediskusi kelompok?
- LA17: Diskusinya tetap lanjut cuman mungkin kurang yang harusnya langsung aku jawab belum terjawab. Mungkin disana kurang jalannya diskusi itu kurang pas tapi kalau misalkan bisa dijawab saat itu juga, ya jawab tapi karena bagi aku sulit nengok ChatGPT dulu ada jedaya.
- Researcher: Secara keseluruhan nih, setelah ngikutin proses Jigsaw dari awal sampai akhir, menurutmu pemakaian ChatGPT ini ngaruh nggak sih ke pemahamanmu tentang mata kuliah Metode Penelitian Kualitatif?
- LA18: Sangat berpengaruh, baiklah sangat membantu juga dengan adanya ChatGPT.
- Researcher: Kalau ngaruh, seberapa ngaruh? Dari semua yang kamu lakukan dengan ChatGPT, bagian mana yang paling ngebantu dan mana yang paling nggak ngebantu waktu kamu jadi ahli dan bantu kelompok asalmu?
- LA19: Yang paling yang paling ngebantu itu dari segi informasi pas pertama kita ajuin prom pertanyaan terus kalau ChatGPT secara umum, jadi diberesarkan berbagai sumber disitu sih yang memudahkan dibandingkan dari hand out kalau ada ChatGPT dari berbagai sumber yang sudah dipastikan satu-satu dari pendapat ini jadi kesimpulan akhir dari situ lebih kaya dibandingkan dari hand out saja.
- Researcher: Kalau bagian yang paling gak ngebantu?

- LA20: Yang gak membantu pas pakai ChatGPT itu kesulitan.
- Researcher: Bagian yang paling ngebantu itu waktu jiksa atau pas jadi ahli untuk bantu kelompok asal itu bagian yang bagaimana?
- LA21: Yang paling gak membantu mungkin yang pas jadi ahlinya itu kalau misalkan dari pas jiksa di kelompok kita ini masih dalam kelompok, belum menjelaskan ke kelompok lain itu paling membantunya dari sumber-sumber itulah kan yang sudah dipastikan keakuratannya misalkan lagi menjelaskan ke kelompok lain biasanya misalkan ada pertanyaan pun yang muncul langsung bisa terjawab dari penjelasan yang kita pahami di awal jadi langsung bisa jawab biasanya, ataupun kita sudah menjelaskan ke kelompok asal kita itu atau orang lain, dan itu langsung menangkap juga, oh maksud dia itu ini karena jadi pas sih penjelasannya.
- Researcher: Jadi bagian yang paling gak membantu bagian mananya? Pas jadi ahli karena?
- LA22: Karena jadi ahli itu kan pas di kelompok itu atau pas di kelompok ini? Kelompok sendiri, kelompok yang lain juga boleh, soalnya kita di fenomenon ini kalau tidak salah, tidak balik lagi untuk share ke kelompok lain tapi di kelompok itulah, saling share sesama kita aja, mungkin nanti kalau udah gantian-gantian presentasi, kelompok lain yang bertanya tapi kalau saling gantian kayaknya belum di mata kuliah kualitas.
- Researcher: Kalau misalkan di kelompok yang awal itu, pas menjelaskan, pas jadi ahli.
- LA23: Jadi kan pas aku lagi ngomong orang itu sudah paham, oh intinya ini, langsung ini, misalkan aku ada kesalahan, atau aku yang menjelaskan lagi bingung, terjeda orang itu sudah mempaham maksudnya itu jadi cak, yang penting poin intinya sudah disampaikan, terus mereka bisa langsung maksudnya ini ya, oh iya.

- Researcher: Kalau nanti kamu ikut tugas Jigsaw lagi, kamu bakal ubah nggak cara kamu pakai ChatGPT dengan cara yang sama atau ada yang mau kamu perbaiki? Kalau diubah, bagian mana?
- LA24: Hmm yang diubah apa ya, mungkin dari promnya aja biar lebih pas kalau kemarin pakai promnya apa ya, ChatGPT masih jawab salah, mungkin salahnya dari promnya yang awal itu sih, jadi kalau misalkan yang pengen diubah ya dari promnya itu biar tidak banyak revisi-revisi, jadi kalau misalkan kebanyakan nanya ChatGPT juga bingung kadang ngambil yang mana ini yang benarnya terus sampai hasil finalnya itu kadang gak sesuai dengan yang diharapkan jadi harus nanya lagi.

Interview 2: Role of ChatGPT on Learning Process in Jigsaw

- Researcher: Ada nggak sih momen di mana ChatGPT justru 'memaksa' kamu buat mikir lebih kritis tentang konsep-konsep kualitatif yang abstrak? Coba kasih contoh spesifiknya.
- LA1: Mikir tapi kalau aku suruh mikir kritis lah mungkin jawaban ini masih tebak-tebak, terus aku tanyakan lagi ke ChatGPT nya, bener gak sih yang kamu maksud itu dari yang nya suruh itu biasanya aku pastikan itu lagi karena kalau dari aku tuh sempat mikir dan nebak-nebak aja bener gak sih, terus aku tanyakan lagi ke ChatGPT nya itu nah.
- Researcher: Waktu lagi diskusi di Kelompok Ahli, pernah nggak interpretasi awalmu tentang perbedaan pertanyaan kualitatif vs kuantitatif itu 'ditantang' oleh ChatGPT, sampai akhirnya kamu jadi lebih paham mendalam? Pas diskusi di kelompok ahli, pernah nggak ChatGPT bikin kamu mempertanyakan ulang pemahamanmu—misalnya soal perbedaan jenis pertanyaan kualitatif dan kuantitatif—sampai akhirnya penalaranmu jadi lebih dalam?
- LA2: Lebih mendalam sih kan, apa ya, dari ChatGPT itu sudah menampilkan hasil yang kita tanyain terus dari kita sendiri itu udah tau kalau persiskan perbedaan terus di bawahnya itu biasanya aku klarifikasi

kalau dari saya atau yang saya ketahui itu perbedaannya itu ini, ini, ini, terus kok beda dari yang jawaban kamu tadi di awal terus jangan jelasin lagi penjelasannya itu jalan tengah lah, antara aku yang mudah aku dapetin sama ChatGPT itu, jadi benar-benar clear disitu.

- Researcher: Waktu kamu lagi berusaha memahami konsep bahwa "peneliti adalah instrumen kunci", lalu bagaimana penjelasan dari ChatGPT itu membantu kamu biar bener-bener 'klik' sama konsep itu?
- LA3: Biasanya dia meyakinkan atau masih apa ya ini dalam kasusnya masih di kelompok itu tadi atau kan ini kualitatif itu ada di masih di kelompok mungkin ini untuk tahap asal kita mengahami kegiatan kita sendiri dulu sebelum di sharing.
- Researcher: Dengan konsep peneliti adalah kunci ngebantu gak kira-kira penjelasan dari ChatGPT.
- LA4: Sangat membantu, bahkan dia kalau misalkan kita udah merasa ini pas, terus tanyain lagi dia pasti bilang ini penjelasannya udah pas atau bagaimana, cuma dia ngasih saran lagi jadi lebih membantu sih apalagi kalau ada sarannya benar-benar membangun itu pas dengan ChatGPT itu.
- Researcher: Berarti paham dong dengan konsep peneliti adalah instrument kunci dari penjelasan ChatGPT gimana penjelasan dari ChatGPT itu biar benar-benar klik sama konsep itu sehingga, oh paham nih peneliti adalah instrument kunci dari penjelasan ChatGPT bagaimana caranya dari klik sama konsep istilah itu.
- LA5: Ini ChatGPT-nya menyesuaikan atau masih dari proses yang nanya-nanya lagi di ChatGPT-nya intinya, ChatGPT kita berdiskusi sama ChatGPT terkait pengetahuan adalah instrument kunci biasanya, apa ya aku selalu detailkan di bagian pertanyaan itu, jadinya itu benar-benar ngasih hasil yang pas, oh kamu ini sebagai ini ini cocok untuk kau untuk dijelasin, ataupun si Amano pun dalam, apa ya, aku sebagai ini dia ngasih pas di jawaban itu ChatGPT.

- Researcher: ChatGPT bantu kamu nggak sih buat bedain penalaran induktif dan deduktif lewat penjelasan yang dia kasih? Kalau iya, gimana kamu pakai pemahaman itu waktu ngajar di Kelompok Asal?
- LA6: Gitu kalau dari jawaban awal ChatGPT itu belum ngasih tahu belum ngasih eduktif atau deduktif, kalau misalkan kita lebih jelaskan lagi, rinsikan lagi ditanyakan lagi, baru dia jelasin kalau misalkan di awal itu dia belum sama sekali menyentuh ke eduktif-deduktif masih secara umum jadi kalau belum terlalu membantu.
- Researcher: Waktu kamu lagi mendalami atau memahami tentang pendekatan kualitatif yang kamu dapat, bagaimana ChatGPT bantu kamu jelajahi berbagai definisi, contoh, atau pandangan penulis yang berbeda??
- LA7: Misalkan awal dari handout disebutkan beberapa nama disana itu pasti aku tanyain, ini kan ada tiga ahli yang mengertikan ataupun berkaitan tentang materi aku itu, coba dari sana itu, lebih jelaskan lagi dari ketiga itu, tapi pakai sumber untuk memastikan jadi dari tiga itu mungkin bisa diambil satu kesimpulan ataupun kalau misalkan ditanya ini dari satu ini, poin yang disampaikan apa sih jadi lebih paham.
- Researcher: Setelah eksplorasi itu, kamu masih bisa jelasin konsepnya beberapa minggu kemudian tanpa bantuan ChatGPT? Bagaimana sih eksplorasi itu memengaruhi pemahaman jangka panjangmu?
- LA8: Masih bisa karena dari awal itu sudah diambil intinya inti poin misalkan setepik aku sudah dapat intinya jadi kalau misalkan minggu depannya lagi lagi bahas itu lagi atau bagaimana, karena aku ingat bagian aku itu, dan intinya jadi intinya tidak dapat tinggal penjelasan-penjelasan itu bisa pakai kita sendiri bahasa kita, atau bagaimana pokoknya intinya itu dalam diskusi.
- Researcher: Dalam diskusi Kelompok Ahli, Bagaimana ChatGPT itu bantuin kelompokmu di bagian mana aja? Misalnya, bantu nyusun topik, bagi tugas, atau nyimpulin ide-ide utama?

- LA9: Kalau lagi di kelompok kan sudah ada pembagian tugas masing-masing itu kasusnya masing-masing orang sudah pakai ChatGPT galakan dari anggota kelompok itu nah bantunya itu paling aku tanyain lagi sudah itu penjelasan masing-masing, nah dari sana ada yang kurang pas, atau dari penjelasan ini kami itu kurang bisa paham ditanyain lagi di ChatGPT jadi pas hasil akhirnya kelar ini tuh yang hasil dari kelompok kita, materi ini yang masih bingung itu demi clear jadi penjelasan yang harus kita jelaskan itu ini dari hand out misalkan tentang case tadi sudah benar-benar pas jadi bagian nyusul topik, bagi tugas atau menyimpulkan ide-ide utama.
- Researcher: Apakah Penggunaan ChatGPT ini bikin kamu jadi lebih mandiri atau malah jadi lebih bergantung sama teman kelompokmu buat ngertiin atau ngatur materi ahli? Jelaskan bagaimana.
- LA10: Materinya jadi lebih mandiri karena segalanya itu ditanyain di ChatGPT dan kalau misalkan kurang pas bisa tanya lagi benar-benar clear jadi kalau misalkan nanya sama kawan kadang dia nanya sama ChatGPT juga tapi apa ya misalkan ini tuh ada yang kebingungan dia tidak tanya lagi jadi saya lebih ke diri sendiri ya tanyain aja lah ChatGPT kalau misalkan aku tidak paham ya aku tanyain lagi jadi clear atau karena penjelasan kawan juga membingungkan? kalau dari penjelasan kawan tidak sih kalau misalkan lagi membingungkan juga aku tanya misalkan aku ciri-cirinya ini apa tuh pengetahuan atau apa dari jawaban ChatGPT aku juga meskipun ada di ciri-ciri adalah sedikit menyenggol ke yang lain jadi misalkan menjelaskan maksudnya tuh arahnya ke sana jadi misalkan bingung-bingung juga masih bisa di ngertiin.
- Researcher: Menurut kamu, apakah ChatGPT membantu nggak kelompok kamu untuk menyiapkan penjelasan yang lebih rapi dan terstruktur sebelum balik ke kelompok asal? Kalau iya, gimana dampaknya ke kualitas ‘ngajar’atau penjelasan ke teman-temanmu?

- LA11: Ya, membantu. Kan kalau misalkan kita, apa ya, pas menjelasin itu kan dari ini, kelompok lain juga kan dapat materi dari kelompok lain juga. Ya, mungkin itu tuh ada ketinggalan, apa ya, mungkin pas menjelasin kan kita sambil-sambil nyatot apa camana atau ada ketinggalan di itu, ya tanyain lagi di ChatGPT. Biar benar-benar pas nyampe di kelompok yang awalnya itu ya materinya tuh benar-benar pas ada ketinggalan-ketinggalan. Jadi yang kita sampein ke, pas bawa ke kelompok asal juga tuh udah ngerti, enggak ada lagi yang mengganjal atau calonnya ini, atau ketinggalan apa gitu.
- Researcher: Terus gimana dampaknya ke kualitas ngajar atau ngejelasin ke teman-temanmu menurutmu sendiri? Kualitas ngajar di penjelasannya.
- LA12: Lebih, apa ya, lebih banyak yang dijelasin dan, apa ya, bagus sih, lebih bagus lah. Karena, apa ya, dari penjelasan, apa ya, dari penjelasan dari kita, terus ChatGPT itu aja ada banyak. Apalagi kalau misalkan sudah ada tanggapan dari orang, apa ya, pas nak kita ajarkan lagi pun. Misalkan pas lagi ngejelasin juga kan ada yang, ini nih, apa namanya, Cak, berhentikan dulu, nanya lagi. Kadang itu lebih memacu, apa ya, maksud yang kita jelasin itu lebih dirincikan lagi, dijelaskan lagi di sana. Jadi lebih pas dan lebih enak, Cak, itu. Karena kalau misalkan yang kita ajarin itu, Cak, kita jelasin itu diam, berarti penjelasan kita tuh udah clear di sana dan sudah jelas. Tapi kalau misalkan ditanya lagi, lebih, jelasinnya itu lebih panjang lagi dan itu lebih buat kawan-kawan yang lagi dengerin materinya itu, apa ya, Cak, ini penjelasannya pas, Nien.
- Researcher: ChatGPT bantu kamu nggak sih buat mengubah perbedaan-perbedaan metodologi itu jadi penjelasan yang lebih gampang dimengerti sama teman-temanmu?
- LA13: Iya, membantu-membantu. dari penjelasan aku itu, kan udah dari ChatGPT juga tuh, cuman dari versi yang aku tuh, misalkan udah final, terus aku sampaikan ke kawan-kawan, Nah, itu mereka juga kan punya

pandangan sendiri atau apa ya, mungkin pernah baca atau cacat mana, terus sampaikan.

- Researcher: Entah, tadi tuh membantu atau ini ya? Buat mengubah perbedaan-perbedaan atau memahami perbedaan-perbedaan metodologi itu jadi mudah nggak?
- LA14: Nah, kan dari yang kawan-kawan itu mungkin pernah baca atau cacat mana, jadinya nyampaikan dari dia itu pandangannya cacat mana. Terus pas aku jelasin yang dari ChatGPT, yang lebih mudah dimengerti itu, jadi mereka paham. Paling kalau misalkan udah dijelasin, aku tuh awalnya tuh membaca dari ini, penjelasannya kayak ini. Cuman pas dijelasin tadi, katanya pas, itu biasanya sering terjadi sih. Jadi penjelasan dari ChatGPT itu bener-bener mudah diterima, meskipun udah baca dari berbagai sumber, intinya tuh itulah yang mudah.
- Researcher: Waktu Kelompok Asal-mu nanya pertanyaan yang lumayan sulit, perumusan jawaban yang dikasih ChatGPT itu bikin kamu lebih pede (percaya diri) nggak waktu ngejelasin konsepnya?
- LA15: Ya, pede. Dari pertanyaan itu kan, oh jadi jawabannya tuh, justru tampilkan jawabannya tuh yang banyak. Cuman kalau misalkan aku masih kurang paham di sana, aku tanyain lagi. Jadi Cak duo jawaban dari ChatGPT itu. Jadi Cak lebih bikin pede sih, karena kan lebih lengkap lah dari yang pertama itu. Jadi Cak menjelasin ke teman-teman juga, ini bener. Lebih yakin.
- Researcher: Ada tidak momen di mana ChatGPT bikin kamu sadar kalau kamu ternyata belum sepenuhnya ngerti sebuah konsep sebelum kamu mau ngajarinnya ke teman-temanmu, sehingga kamu akhirnya belajar lagi or buat prompt lagi?
- LA16: Kan apa ya, misalkan dari ChatGPT itu ngasih penjelasan yang beda dari yang aku tahu itu kan. Nah terus, pastinya aku nanya lagi tuh, kalau misalkan dari yang aku tahu Cak ini nih, terus dia kasih jalan tengah. Nah

jalan tengah itu, dari jawaban itu mungkin aku agak kurang sert lagi, jadi tanyain lagi. Jadi Cak, aku ngerti sih, ternyata tidak seperti yang aku, ini kan sebelumnya. Jadi jawaban dari ChatGPT itu bikin lebih tahu lah, daripada yang kebanyakan yang tidak tahu sih. Lebih paham lagi tentang itu.

- Researcher: Biasanya kalau waktu momen gitu bikin promnya, promnya gimana tuh? Gue ngerti sebenarnya, tapi terus sebelum mengajar ke kawan. Sehingga kan menonjol lagi ke ChatGPT, lalu buat prom lagi. Nah promnya Cak gimana biasanya kalau udah stuck dan ngerti atau mau belajar lagi, clarifying lagi? Promnya gimana biasanya?
- LA17: Saya masih bingung di bagian ini, ini, terus tolong jelasin lagi lebih detail. Supaya dengan bahasa yang mudah dipahami. Biasanya Cak itu sih.
- Researcher: Setelah pakai ChatGPT, kamu jadi merasa lebih mampu nggak sih buat menerapkan konsep-konsep kualitatif sendiri/secara mandiri, atau masih ngerasa perlu bantuan ChatGPT buat memastikan pemahamanmu benar?
- LA18: Iya, butuh untuk memastikan itu tuh benar-benar pas dan benar.
- Researcher: Jadi masih busuh ChatGPT lah ya, walaupun konsep-konsep kualitatif itu ribet semuanya ya.
- LA19: Iya, masih butuh.
- Researcher: Jadi masih butuh bantuan ChatGPT buat memastikan pemahamanmu benar ya?
- LA20: Iya, biar benar-benar pas lah.

Script Wawancara MP -13 Desember 2025 14.25

Interview 1: Step-by-Step ChatGPT Involvement in Jigsaw Learning

- Researcher: Waktu kamu ngerjain tugas Jigsaw kemarin, kamu memang inisiatif sendiri buat pakai ChatGPT atau gimana?
- MP1: Saya, awalnya saya menggunakan ChatGPT untuk beberapa faragraph Yang emang terkandung vocab-vocab yang akademik atau vocab-vocab yang levelnya itu advanced Itu saya menggunakan ChatGPT Karena kalau misalnya saya berusaha memahami sendiri Kan jigsaw itu harus menerangkan ke temannya Karena kalau misalnya banyak vocab yang saya nggak ngerti Itu saya berinisiatif menggunakan ChatGPT Tapi untuk faragraph-faragraph yang emang kalimat-kalimatnya itu masih mudah saya pahami Saya tidak menggunakannya Tapi berhubung di kualitatif itu kan banyak sekali tuh Vocabnya udah mulai advanced, karena udah mulai ke penelitian Jadi saya mostly berinisiatif itu dari diri saya sendiri itu menggunakan bantuan ChatGPT.
- Researcher: Kamu pakai versi ChatGPT yang mana, dan kenapa milih versi itu buat mata kuliah Kualitatif? Ada alasan khusus nggak?
- MP2: 3.5 Karena as you know, kalau misalnya kemarin Kalau sekarang kan udah ada yang 5 ya, versi 5 Kalau kemarin kan masih ada yang 4 tuh Itu kan harus berbayar Dan saya sebagai mahasiswa itu belum se-effort itu untuk membayar sebuah AI Jadi saya masih memanfaatkan yang 3.5 Untuk lebih bersahabatlah dengan mahasiswa gitu Karena hasilnya juga, walaupun hasilnya jauh lebih yang versi 4 Tapi 3.5 juga sangat membantumu.
- Researcher: Waktu kamu udah masuk kelompok ahli, bagian mana nih dari subtopikmu yang bikin kamu langsung merasa, "Ah, kayaknya aku harus tanya ChatGPT nih?"
- MP3: Bagian mungkin di Kan kayak ada, bakal ada Misalnya kita dikasih satu Misalnya tentang teori ya Dari kayak definitionsnya Jadi kayak apa sih Kan kalau misalnya Teori induk apa ya? Grounded theory ya? Kalau grounded theory kan kita cuma tahu itu teori induk Tapi kan bakal ada definisinya lagi kan Dan itu tuh Dan saya belum familiar di mata kuliah sebelumnya Karena belum pernah membahas sedetail itu tentang mata kuliah Atau tentang research Yang mengenai research Jadi kayak mulai dari definitionsnya gitu Apa sih kalau misalnya Fungsinya itu Enggak terlalu ya Tapi kalau mulai dari definitionsnya Apalagi kayak udah menurut beberapa ahli Saya meminta bantuan untuk membedakan Apa sih sebenarnya definitionsnya gitu.
- Researcher: Sebenarnya kamu berharap ChatGPT bantu kamu mencapai tujuan belajar apa sih waktu itu? Atau kamu berharap ChatGPT bisa bantu kamu mencapai tujuan belajar apa sih?
- MP4: Untuk memahami Membantu saya memahami Agar saya bisa mendelivery Bagian saya yang ditanggung jawabkan Dalam kelompok

tersebut Misalnya saya ke bagian definisi Karena berhubung pemahaman saya Tadi saya bilang tentang Mungkin tentang Vocabulary nya kurang Jadi saya minta bantuan ChatGPT Jadi saya Goal saya Dari menggunakan ChatGPT itu Agar saya bisa mendelivery Atau menyampaikan tanggung jawab saya ke teman saya Dengan baik gitu loh Jadi mereka itu bisa mengerti Dengan cara yang lebih sederhana dari handout tersebut.

- Researcher: Waktu bikin prompt pertama kali, kamu nyusunnya gimana biar sesuai sama materi Metode Penelitian Kualitatif yang dipelajari di kelas? khususnya buat persiapan ngajar di kelompok asal? Gimana cara kamu bikin kalimat pertanyaan (prompt) awal ke ChatGPT biar jawabannya itu nyambung dan sesuai sama ekspektasi mata kuliah Metode Penelitian Kualitatif ini?
- MP5: Jadi Kalau misalnya di ChatGPT kan ada limit Kalau mengirim foto kan Jadi kalau misalnya limitnya itu Masih belum terpakai Jadi saya foto dengan menggunakan prompt Kayak Hai ChatGPT Jadi saya sedang melaksanakan Mata kuliah kualitatif research Dan saya sedang di Materi jenis-jenis Metode kualitatif dan saya kebagian di Case study Berikut saya lampirkan definisi case study dari beberapa Ahli Bisakah anda bantu saya Untuk menjabarkan lebih lanjut Maksud dari definisi-definisi tersebut.
- Researcher: Bisa ceritain nggak, urutan langkah yang kamu lakukan waktu mulai tanya-tanya ke ChatGPT buat memahami subtopik kamu itu? Kamu mulai dari mana, terus lanjut ke mana?
- MP6: Oke, pertama tadi kan dari Kalau misalnya masih bisa dilampirkan foto Saya foto hand out yang kebagian saya Misalnya definisi kan Terus tadi saya masukin prompt Jadi saya mahasiswa semester 7 Atau saya sedang menjalani mata kuliah kualitatif research Dan saya Sedang Menjalani Sedang membahas materi tentang Definisi teori-teori Dan saya kebagian praksis teori Sesuai yang anda lihat dalam hand out tersebut Ada beberapa definisi dari Praksis teori, tapi bisakah anda menjabarkan Lebih langsung secara detail Poin-poin yang ada di Poin-poin yang ada di Hand out tersebut dalam bahasa Indonesia Terus kalau misalnya udah Asinnya gitu Tapi kayak pasti ada beberapa Yang masih istilah Yang masih kita rancu gitu kan Yang belum kita ngerti nih maksud dari Definisinya, itu melatih tanya lagi Maksud dari ini nih apa gitu, bisa ngelagi gak gitu Dijabarin gitu Misalnya ada yang di Dia keluarin hasil prompt kita tadi Ada yang step one misalnya claiming importance Tapi dia langsung Langsung apa tuh Kasih contoh dan Definisi tapi gak menjelaskan secara langsung Maksud claiming importance ini gimana Itu melatih tanya lagi Kok bisa sih claiming importance ini relate sama ini Maksudnya gimana ya.
- Researcher: Pertanyaan atau permintaan klarifikasi seperti apa sih yang kamu ajukan ke ChatGPT, terutama buat konsep-konsep kualitatif kayak tema, koding, paradigma penelitian, atau teknik sampling atau jenis jenis pendekatan kualitatif?
- MP7: Oh kalau misalnya di coding Itu kan Kita Dijelaskan misalnya sama Salah satu dosen cara meng-coding Tapi kan karena berhubung waktu Dan

dosennya gak mungkin Secara utuh dari awal Jadi saya suka bingung nih kalau misalnya Saya berniat di kualitatif Bagaimana sih cara tahap-tahap coding Jadi saya nanya nih Ke ChatGPT Kalau misalnya udah menghasilkan sebuah skrip wawancara Itu kan yang coding Nah bisakah anda jabarkan lebih lanjut tahap coding Yang sebenarnya seperti apa Terus nanti baru dia kasih Kalau misalnya tuh kita mengelompokkan dulu teori-teorinya Terus kita mengelompokkan jawaban yang sama dengan teori-teorinya.

- Researcher: Setelah dapat penjelasan dari ChatGPT, Gimana caramu memastikan kalau penjelasan ChatGPT itu udah cukup bagus dan memadai buat kamu jelasin lagi ke teman-teman di kelompok?
- MP8: Caranya Saya Kan habis dari Kalau misalnya saya dapet Udah bikin from dan hasilnya menurut saya itu Udah Bagus untuk di-deliver ke teman saya Saya deliver kan abis itu saya tanya lagi Apakah udah cukup jelas atau masih ada istilah-istilah Yang mereka masih bingung Dan karena balik lagi ya Saya kan tidak bisa menggantikan peran seorang guru atau seorang dosen Dan itu nanti bakal saya simpen pertanyaannya Dan bakal dibahas lebih lanjut lagi Waktu sesi jigsaw-nya Itu benar-benar berjalan yang tukar pendapat Dari kelompok lain.
- Researcher: Nah waktu kamu dapet jawaban Dari ChatGPT?
- Researcher: Waktu kamu dapat jawaban dari ChatGPT, gimana sih cara kamu ngecek atau memastikan kalau info itu akurat dan cocok sama materi Metode Penelitian Kualitatif yang diajarkan di kelas?
- MP9: Saya biasanya Untuk mestiin apakah itu benar atau enggak Saya biasanya minta contoh langsung Kepada ChatGPT terkait Materi yang saya minta Clarify Jadi kalau misalnya dia contohnya itu udah benar-benar sejalan Sama apa yang masih saya bingungkan Atau materi yang saya bahas Insya Allah saya yakin Itu udah cukup valid.
- Researcher: Kamu sempat bandingin nggak sih jawaban ChatGPT sama buku, slide kuliah, atau bacaan wajib lainnya? Kalau iya, proses perbandingan itu bantu membentuk pemahamanmu kayak gimana? Atau pengaruhnya apa ke pemahaman kamu?
- MP10: Kalau bandingin dengan hand out Sebenarnya Enggak terlalu jauh Berbeda sih ya soalnya kan Kalau misalnya di hand out Itu dosen itu memberikan Secara simplenya Misalnya k ayak Definisinya itu ya cuman kayak secara simpli Mungkin kayak dua paragraf gitu Tapi kalau misalnya di ChatGPT kan benar-benar dijabarkan lagi Jadi menurut saya kalau misalnya perbedaan Signifikan gak terlalu signifikan Tapi karena saya kurang puas Dengan hand out karena dia cuman Memberikan isi PPT Jadi dengan adanya ChatGPT 3.5 Itu cukup membantu.
- Researcher: Terus proses pembandingan itu Membuat proses pembandingan itu Membentuk pemahamanmu yang kayak gimana?
- MP11: Biasanya saya Ngebandinginnya kan Habis dari hasil dari AI Terus ke hand out Saya bandingin lagi itu Saya dikasih note di hand outnya Untuk poin-poin yang emang belum lengkap Dari hand outnya Kalau misalnya di hand outnya itu cuman kayak Apa ya misalnya contohnya

disini Kalau misalnya Cards itu cuman untuk Itu kan cuman sekedar Geris besarnya aja Tapi kalau misalnya kita minta prom di ChatGPT dengan benar Dia kasih maksud lagi nih Apa sih maksud dari brothers tadi Jadi kurang lengkap kan Jadi saya biasanya tambah lagi Di corek-corekan hand out saya Jadi informasi dari ChatGPT itu Saya tambah lagi ke sini Jadi lebih lengkap waktu saya me-deliver ke temen saya Atau kalimat Atau istilah-istilah yang emang menggunakan Istilah advance disini Saya minta jelasin lagi maksud dari istilah tersebut Dan relate-nya ke materi saya Jadi saya biasanya tambah lagi Di bagian bawahnya Jadi itu proses pembandingan Kalau saya.

- Researcher: Pernah nggak kamu harus balik lagi nanya ke ChatGPT karena jawabannya kurang jelas, kurang lengkap, atau beda sama konsep yang diajar dosen dimata kuliah kualitatif ini? Coba ceritakan satu momen itu!
- MP12: Oh iya balik lagi Momen yang kayak beberapa kali saya Menanyakan kepada ChatGPT itu Kayak kan kalau misalnya kita clarifying pertama Terus masih belum paham Atau masih hasilnya yang dia bilang itu Masih rancu terus clarifying lagi yang kedua Itu mungkin Dibalik lagi ke Istilah-istilah Yang menggunakan benar-benar istilah advance Jadi saya meminta clarifying Berulang-ulang kali Agar dia itu benar-benar relate sama materinya.
- Researcher: Informasi yang kamu dapat dari ChatGPT itu, bagaimana caranya kamu ubah jadi bentuk yang kayak gimana biar enak waktu kamu ajarkan ke kelompok asalmu? Jelaskan bagaimana!
- MP13: Saya ubah dengan bahasa saya sendiri Karena kan kalau bahasa ChatGPT kan Terkaku ya dan beberapa itu Belum disederhanakan Karena dia bahasa mesin Jadi waktu saya dapet penjelasan dari ChatGPT itu Saya sederhanakan lagi ke bahasa saya Baru saya menjelaskannya ke teman Kelompok saya.
- Researcher: Selain itu, waktu nyiapin sesi ngajar sebagai ahli, gimana caranya atau bagaimana caranya kamu gabungin penjelasan dari ChatGPT dengan materi-materi kuliah yang lain seperti handouts di mata kuliah Kualitatif ini?
- MP14: Saya gabunginnya Dari hasil ChatGPT dan handouts Itu yang kayak tadi sih Untungnya di kelasnya Kualitatif ini dosennya itu Low kita ngomongnya itu 50% in bahasa 50% in english Jadi in englishnya itu saya ngambil Pemahaman saya berdasarkan di handouts Sedangkan di bahasanya itu saya ngambil pemahaman saya Dari ChatGPT itu tadi.
- Researcher: Menurut kamu, bagaimana pengaruh bantuan ChatGPT terhadap cara kamu ngejelasin subtopik ke teman-teman di kelompok asal?
- MP15: Sangat membantu karena Kalau misalnya saya hanya bergantung pada handouts Saya hanya menjelaskan apa yang handouts itu bilang Tapi dengan ada bantuan ChatGPT Dia itu bener-bener menjabarkan Apa sih maksud dari istilah ini Apa sih maksud dari definisi ini Contoh dari definisi ini Jadi dia itu bisa relate ke real world kita.

- Researcher: Nah, kalau di kelompok asalmu ada yang nanya pertanyaan sulit, kamu sempat buka ChatGPT lagi nggak buat cari klarifikasi? Kalau iya, gimana dampaknya ke diskusi di kelompok kalian?
- MP16: Oh iya kalau misalnya mendapat Pertanyaan yang Sulit saya Diskusi dulu Keteman kelompok tapi kalau misalnya Mereka juga sama bingungnya dengan pertanyaan tersebut Baru kita semua bareng-bareng memutuskan Kayak kita clarify aja Menggunakan AI gitu Dan berjalan yang berdiskusi itu Itu gak mengganggu ya Dengan dapat pertanyaan sulit itu gak menghambat juga Diskusi di kelompok Tapi kita sama-sama Kayak Mengklarifikasi bener gak sih Ini dari ChatGPT kok dia bilang gini ya Tapi secara keseluruhan gak ada Mengganggu jalannya diskusi.
- Researcher: Secara keseluruhan nih, setelah ngikutin proses Jigsaw dari awal sampai akhir, menurutmu pemakaian ChatGPT ini ngaruh nggak sih ke pemahamanmu tentang mata kuliah Metode Penelitian Kualitatif?
- MP17: Ngaruh selama Proses jiksa itu berlangsung Karena di luar proses jiksa kan kita masih Mengklarifikasi dari dosen kan ya Tapi untuk selama saya masih mampu Atau saya bisa menjelangkan Tanggung jawab saya itu untuk menjelaskan Materi menurut saya itu masih sangat Membantu karena di luar itu nanti Ya karena kita juga balik lagi Kita masih membutuhkan seorang guru kan Karena AI gak bakal menggantikan guru jadi menurut saya Untuk selama proses jiksa berlangsung Deliver material terus Menyampaikan ke kelompok lain Itu menurut saya sangat membantu.
- Researcher: Kalau ngaruh, seberapa ngaruh? Dari semua yang kamu lakukan dengan ChatGPT, bagian mana yang paling ngebantu dan mana yang paling nggak ngebantu waktu kamu jadi ahli dan bantu kelompok asalmu?
- MP18: Mungkin 75% mengaruh Di selama Di matkul tersebut berjalan.
- Researcher: Terus dari semua yang kamu lakuin ya sama ChatGPT Menurutmu bagian mana yang paling ngebantu Dan mana yang paling gak ngebantu Waktu kamu jadi ahli dan bantu Kelompok asam?
- MP19: Kalau bagian yang Paling ngebantu itu seperti yang Saya bilang tadi dia itu membantu Menjabarkan istilah-istilah Yang menurut saya itu masih belum Saya belum familiar ke saya gitu Tapi di titik yang gak Ngebantunya itu Menurut saya Kalau bilang gak ngebantu bukan gak ada sih Karena mungkin saya Harus membatasi diri saya gitu Biar gak terusan-terusan Karena kan kalau misalnya menggantikan diri Ke AI kan critical thinking itu Jadi gak berjalan kan ya Jadi saya harus lebih awarenya ke sana Agar gak terus-terusan ke ChatGPT.
- Researcher: Kalau nanti kamu ikut tugas Jigsaw lagi, kamu bakal ubah nggak cara kamu pakai ChatGPT dengan cara yang sama atau ada yang mau kamu perbaiki? Kalau diubah, bagian mana?
- MP20: Kalau misalnya Saya guru ya Dan saya akan menerapkan Jigsaw itu Di murid saya gitu Atau let's say kamu yang Mengalami Jigsaw lagi Kayaknya Enggak sih yang kayak saya Udah biasa lakukan di kelas Karena udah sangat cukup membantu.

Interview 2: Role of ChatGPT on Learning Process in Jigsaw

- Researcher: Ada nggak sih momen di mana ChatGPT justru 'memaksa' kamu buat mikir lebih kritis tentang konsep-konsep kualitatif yang abstrak? Coba kasih contoh spesifiknya.
- MP1: Ya Mungkin pas Dosennya itu meminta Kita itu buat ngasih contoh satu penelitian Karena kan kalau misalnya kita minta pelitian di ChatGPT Kan penelitiannya kayak ngawur kan ya Sourcenya juga gak jelas Jadi kalau misalnya dosen tersebut Itu meminta Misalnya case study dan berikan salah satu Contoh case study gitu Atau buatlah judul tentang case study Itu kan kita gak bisa langsung kayak ChatGPT bikinin case study Dan itu kita harus memaksa diri kita Buat mikir sendiri Tentang judulnya, kasus yang terjadi Jadi kalau misalnya tentang penelitian Itu saya tidak meminta bantuan.
- Researcher: Waktu lagi diskusi di Kelompok Ahli, pernah nggak interpretasi awalmu tentang perbedaan pertanyaan kualitatif vs kuantitatif itu 'ditantang' oleh ChatGPT, sampai akhirnya kamu jadi lebih paham mendalam? Pas diskusi di kelompok ahli, pernah nggak ChatGPT bikin kamu mempertanyakan ulang pemahamanmu—misalnya soal perbedaan jenis pertanyaan kualitatif dan kuantitatif—sampai akhirnya penalaranmu jadi lebih dalam?
- MP2: Pernah sih terjadi yang kayak Misalnya saya mau Meminta klarifikasi tentang suatu hal Terus ChatGPT nya tuh bilang Itu tuh gak begitu gitu kan Maksudnya jadi apa ya Kayaknya pernah deh terjadi Kalau misalnya itu Tapi pada akhirnya Kan itu jatuhnya Saya gak tau ya mana yang benar dan mana yang salah Karena menurut saya selama Pemahaman saya di mata kuliah Sebelumnya itu menurut saya Sayang benar gitu, tapi menurut ChatGPT Dia memberikan jawaban yang lain Tapi saya mengambil jawaban yang sepahaman saya Kalau misalnya jawaban ChatGPT itu Udah kayak gak linear dengan yang saya cari Jadi saya memakai pemahaman Yang saya gunakan.
- Researcher: Waktu kamu lagi berusaha memahami konsep bahwa "peneliti adalah instrumen kunci", lalu bagaimana penjelasan dari ChatGPT itu membantu kamu biar bener-bener 'klik' sama konsep itu?
- MP3: Jadi waktu pertama kali Mata kuliah ini Dimana ya Yang di mix method Itu juga sempat disinggung sama Salah satu dosen saya, kalau misalnya di kualitatif Kita sebagai informan Itu adalah key Penelitian kita kan Jadi saya Mengklarifai itu ke ChatGPT Maksudnya apakah benar Peneliti Peneliti itu sebagai key informan Yaudah emang key informan Dalam kualitatif itu sebagai peneliti Tapi itu kan key nya Tapi dia itu ngasih penjelasan lagi Kalau misalnya Yang penguacara Sebagai kunci Tapi juga ada yang document observation Terus itu Document checklist dan lain-lain Tapi balik lagi Waktu saya beberapa Menjelani mata kuliah mix method sama kualitatif Dua dosen saya bilang kalau misalnya Key researchers dalam kualitatif Key informan dalam kualitatif Itu adalah orang yang dibuang caranya Atau penelitinya Atau penelitinya.

- Researcher: ChatGPT bantu kamu nggak sih buat bedain penalaran induktif dan deduktif lewat penjelasan yang dia kasih? Kalau iya, gimana kamu pakai pemahaman itu waktu ngajar di Kelompok Asal?
- MP4: Penelaran induktif Yang segitiga itu ya Kalau misalnya Karena berhubung dosen saya Membari secara garis besar aja Kalau misalnya dia itu Biar dia mungkin melatih kita Untuk berpikir kritis Jadi dia cuma menggambarkan segitiga Sama segitiga terbalik Kalau misalnya segitiga itu Induktif ya Segitiga terbalik itu deduktif Itu kan cuma secara garis besar Itu saya Maksud dari general ke umum itu Gimana Kalau misalnya saya mendapatkan Materi tersebut saya clarify Lagi ke ChatGPT Jadi dia jelasin kalau misalnya secara general Dia itu Definisi secara general baru mengurutin Kepermasalahan kita Tapi habis itu Dibahas sama-sama lagi Tapi untuk menyampaikan Secara teman kelompok Saya clarify lagi Maksud dari segitiga terbalik Masuk lagi deduktif Induktif itu apa.
- Researcher: Waktu kamu lagi mendalami atau memahami tentang pendekatan kualitatif yang kamu dapat, bagaimana ChatGPT bantu kamu jelajahi berbagai definisi, contoh, atau pandangan penulis yang berbeda??
- MP5: Itu kan kalau misalnya di hand up Dosennya hanya secara garis besarnya Tapi ada beberapa itu Yang mirip Orang kan sering salah bilang naratif Inquiry sama case study Sering ketukar, itu kan hape linear mereka Jadi saya meminta clarify lagi Sama ChatGPT tentang Contoh, definisi Sama perbedaan masing-masing Pendekatan riset.
- Researcher: Setelah eksplorasi itu, kamu masih bisa jelasin konsepnya beberapa minggu kemudian tanpa bantuan ChatGPT? Bagaimana sih eksplorasi itu memengaruhi pemahaman jangka panjangmu?
- MP6: Kalau misalnya Enggak memakai ChatGPT lagi Kan habis dari sesi jigsaw Kita clarify sama-sama Sekelas sama dosen juga Dan itu saya biasanya Mencatat, jadi saya gak semata-merta Memahami pada Karena berhubung short term saya ini Singkat, jadi saya biasanya mencatat apa yang Dari ChatGPT dan saya bandingkan Dengan penjelasan akhir sama dosen saya Dan apabila pertemuan berikutnya itu Kayak dosennya kembali mengulas Atau menanyakan lagi hal yang sama, perbedaan, ciri-ciri Dan saya tidak membuka lagi ChatGPT Karena saya sudah menggabungkan apa yang Saya pahami, apa yang dari ChatGPT Dan dari diskusi akhir Kita sama dosen dan teman kelas.
- Researcher: Oke, jadi Bisa tanpa bantuan ChatGPT?
- MP7: Kalau misalnya sudah pertemuan selanjutnya bisa Tapi kalau untuk first meeting Membahas tentang materi itu, saya masih membutuhkan.
- Researcher: Dalam diskusi Kelompok Ahli, Bagaimana ChatGPT itu bantuin kelompokmu di bagian mana aja? Misalnya, bantu nyusun topik, bagi tugas, atau nyimpulin ide-ide utama?
- MP8: Kalau Nyimpulin ide utama sama nyusun Tugas itu kita balik ke kelompok masing-masing Paling ChatGPT itu berperannya Ke masing-masing Anggota kelompoknya aja Bagaimana anggota kelompok tersebut menulis Peran mereka sendiri terhadap tanggung jawab Materi yang diberikan kepada mereka.

- Researcher: Oke, jadi bisa kayak Ada yang pakai buat nyimpul diri itu Ide-ide utama, bantu nyusun topik Dan sebagainya ya.
- Researcher: Apakah Penggunaan ChatGPT ini bikin kamu jadi lebih mandiri atau malah jadi lebih bergantung sama teman kelompokmu buat ngertiin atau ngatur materi ahli? Jelaskan bagaimana.
- MP9: Lebih mandiri sih Karena kalau misalnya bergantung sama teman kelompok Mereka juga struggle kan memahami Bagian mereka sendiri, jadi dengan bantuan ini Saya merasa lebih bisa Mandiri dan terbantu untuk menjelaskan Lebih mudah lagi kepada mereka-mereka Yang Yang saya memang Mempunyai tanggung jawab untuk menjelaskan Bagian materi tersebut.
- Researcher: Nah menurut kamu, apakah ChatGPT Membantu nggak kelompok kamu Untuk menyiapkan Penjelasan yang lebih rapi Dan terus-terus struktur sebelum balik lagi Ke kelompok asal? Kalau iya Gimana dampaknya kekualitas ngajar Atau penjelasan ke teman-temanmu?
- MP10: Kalau apa tadi, diskusi kelompok itu Membantu ya.
- Researcher: Menurut kamu, apakah ChatGPT membantu nggak kelompok kamu untuk menyiapkan penjelasan yang lebih rapi dan terstruktur sebelum balik ke kelompok asal? Kalau iya, gimana dampaknya ke kualitas ‘ngajar’atau penjelasan ke teman-temanmu?
- MP11: Kalau membantu menyiapkan Itu nggak terlalu ya Karena balik lagi Kan kalau hasil from ChatGPT itu Menggunakan bahasa mesin Dan kalau bahasa mesin itu cenderung kaku Dan lebih susah dipahami oleh teman-teman Dan saya itu biasanya lebih menyederhanakan Lagi menggunakan bahasa saya sendiri Kalau Lumayan ya.
- Researcher: Terus menurutmu gimana dampaknya kekualitas ngajar Atau penjelasan ke teman-temanmu?
- MP12: Kualitasnya menurut saya Sangat membantu Penjelasan saya itu lebih ada isinya Tapi balik lagi Saya mengambil poin-poin Penting dari ChatGPT Yang saya belum paham Tapi untuk menjabarkan ke teman-teman kelompok yang lain Saya menggunakan bahasa saya sendiri.
- Researcher: ChatGPT bantu kamu nggak sih buat mengubah perbedaan-perbedaan metodologi itu jadi penjelasan yang lebih gampang dimengerti sama teman-temanmu?
- MP13: Membantu.
- Researcher: Waktu Kelompok Asal-mu nanya pertanyaan yang lumayan sulit, perumusan jawaban yang dikasih ChatGPT itu bikin kamu lebih pede (percaya diri) nggak waktu ngejelasin konsepnya?
- MP14: Kalau misalnya mereka itu Memberi jawaban yang sulit Otomatis ChatGPT juga Memberikan hasil Jawabannya itu Pertanyaannya juga panjang Dan itu harus kita Sederhanakan lagi Jadi untuk mendapatkan pertanyaan yang sulit Saya nggak langsung Baca hasilnya dari ChatGPT Tapi saya telah anggap Jawaban dari ChatGPT itu Linear dari maksud yang teman saya Berikan, jadi saya nggak langsung masukin Pertanyaan yang teman saya kasih ke ChatGPT Terus saya baca langsung dari HP itu nggak Tapi saya pahamin dulu maksud dari pertanyaan Teman saya dan saya

pahamin lagi Jawaban dari ChatGPT apakah linear Sama yang saya mau dan Apakah linear sama yang teman saya butuhkan.

- Researcher: Oke terus Perumusan yang dikasih ChatGPT itu bikin kamu Lebih pede nggak waktu menjelaskan konsepnya?
- MP15: Ya lebih pede karena membantu Dari segi poin-poin besar Yang harusnya menjawab pertanyaan teman saya.
- Researcher: Ada tidak momen di mana ChatGPT bikin kamu sadar kalau kamu ternyata belum sepenuhnya ngerti sebuah konsep sebelum kamu mau ngajarinnya ke teman-temanmu, sehingga kamu akhirnya belajar lagi or buat prompt lagi?
- MP16: Oh nggak sih Karena waktu prom pertama Itu kan udah saya Insya Allah kan udah lengkapan ya Tinggal beberapa saya clarify Beberapa Isilah-isilah aja tapi kalau untuk Buat balik dengan prom yang baru itu Nggak.
- Researcher: Setelah pakai ChatGPT, kamu jadi merasa lebih mampu nggak sih buat menerapkan konsep-konsep kualitatif sendiri/secara mandiri, atau masih ngerasa perlu bantuan ChatGPT buat memastikan pemahamanmu benar?
- MP17: ? Membutuhkan bantuan ChatGPT Untuk meng-clarify apakah Pemahaman saya benar dan linear dari Materi dan itu menurut saya ChatGPT cukup sangat membantu saya dalam Mendeliver material karena dia Menyampaikan poin-poin yang Menjabarkan poin-poin yang emang Itu merupakan poin-poin yang Main poinnya dari materi bagian Saya gitu jadi kalau misalnya saya hanya Menjelaskan dari hand out aja Contohnya saya cuman mentranslate atau Menyampaikan apa yang ada dari hand out Jadi nggak ada isinya karena kalau dari Hand out kan mereka sendiri juga bisa baca Hand out mereka masing-masing doang tapi kalau misalnya Dari ChatGPT kan mereka kayak dia Membantu menjabarkan istilah-istilah Tertentu dari hand out tersebut jadi Apa yang saya sampaikan kepada teman saya itu Nggak hanya membaca dari hand outnya aja Ada hal baru yang saya sampaikan Atau ada pemahaman baru yang saya sampaikan Kepada mereka-mereka.
- Researcher: Jadi masih ngerasa Perlu bantuan ChatGPT lah ya Untuk meng-clarify?
- MP18: Iya.

APPENDIX 3 DATA CODING

Abbreviations:

NO	STEPS	Abbreviations
1	Student Initiated	SI
2	ChatGPT 3.5 Version	CG 3.5
3	Step 1: Planning and Prompt Construction	S1
4	Step 2: Interaction and Answer Generation	S2
5	Step 3: Critique and Revision	S3
6	Step 4: Verification, Integration, Accountability	S4
7	Teaching Phase : Return to Home Group and Teaching (Teori Jigsaw - Stage 3) or Knowledge TEACHING and responsive use	TP
8	Reflection Phase : Assessment and Evaluation (Teori Jigsaw - Stage 5) or Learning reflection and future strategy	RP

Example of the codename : LA1
Read as : Students initial number one, transcript number two, spesifik steos number three

Code	TRANSCRIPT	STEPS
LA1-LA2	"Oh iya, inisiatif. Karena dibandingkan yang lain, CHATGPT lebih bagus dari hasilnya... Pilih CHATGPT yang versi... 3.5 karena gratis dan cepat."	**PLANNING & PROMPT CONSTRUCTION** (SI, CG 3.5)
LA3-LA5	"tujuan saya menggunakannya tuh biar, materi yang dipelajari itu bisa benar-benar mudah diingat... Pertama sih, biasanya aku potokan dulu... biar dia sesuai dengan konteksnya juga pas menjelaskan."	**PLANNING & PROMPT CONSTRUCTION** (S1)
LA6-LA8	"Mulanya dari foto itu tadi, scan, masukkan ke CHATGPT... ada nih yang tidak paham... terus tanyain lagi. Apa yang benar-benar pas? ... dari hasil revisi-	**INTERACTION & ANSWER GENERATION** (S2)

	revisi itu, catatanya udah pas, ini pas untuk dijelaskan."	
LA9-LA11	"cek juga dari sumber yang dikasih sama CHATGPT itu, ini benar enggak sih sumbernya... Kok pembahasannya tidak mengarah ke kasus yang kita ajukan di prom? Terus aku tanya lagi sih."	**CRITIQUE & REVISION** (S3)
LA12-LA13	"kita nampakkan handoutnya mister itu juga... Hasil dari final CHATGPT itu sambil pegang handout dari mister, tetap handout mister itu jadi acuan untuk menjelaskan."	**INTEGRATION** (S4)
LA14-LA15	"Pengaruhnya itu lebih baik dan terarah... Biasanya kalau ada pertanyaan yang sulit ya aku tanyakan ke CHATGPT lagi... Diskusinya tetap lanjut cuman mungkin kurang... ada jedaya"	**TEACHING** (TP)
LA16-LA18	"sangat berpengaruh, baiklah sangat membantu... mungkin salahnya dari promnya yang awal itu sih, jadi kalau misalkan yang pengen diubah ya dari promnya itu"	**REFLECTION** (RP)
SP1-SP2	"Benar, saya inisiatif sendiri... karena saya ingin menguasai lebih dalam... Saya menggunakan CHATGPT 3.5... jawaban yang diberikan lebih akurat..."	**PLANNING & PROMPT CONSTRUCTION** (SI, CG)
SP3-SP5	"CHATGPT itu berfungsi untuk menambah wawasan utamanya. Bukan untuk terpaku... Biasanya saya menggunakan kata-kata, tolong jelaskan secara ringkas..."	**PLANNING & PROMPT CONSTRUCTION** (S1)
SP6-SP8	"Langkah-langkahnya biasanya membuka CHATGPT... saya menggunakan ini dalam satu	**INTERACTION & ANSWER GENERATION** (S2)

	room yang sama... case study-case study semua saya tanyain... saya biasanya mau meminta contoh."	
SP9-SP11	"Biasa saja kan yang dijelasin sama dosen... beda sama pernyataan CHATGPT... Hal utama sih bisa ditanyakan kembali kepada dosen... Sangat sering membandingin karena misalnya Mister itu ngasih hand out"	**CRITIQUE & REVISION** (S3)
SP12-SP13	"Misalnya di TNO cuma menjelaskan 3 contoh, nah CHATGPT memberi saya 6 contoh... Biasanya kalau menjelaskan sama teman itu, kasih penjelasan yang berdekatan dengan kehidupan mereka sehari-hari."	**INTEGRATION** (S4)
SP14-SP15	"Pengaruh CHATGPT untuk saya menjelaskan ke teman-teman saya berpengaruh besar... Tentu saja alur diskusinya bakal terjeda... kita meminta bantuan teman kita untuk menjelaskan secara, eh sepengetahuannya dulu"	**TEACHING** (TP)
SP16-SP18	"Tentu berpengaruh, karena pengaruhnya lebih membuat kita lebih kompak... sepertinya saya akan menggunakan cara yang sama dengan apa yang sudah saya gunakan selama ini nyaman."	**REFLECTION (-)**
LN1-LN5	"ini memang inisiatif inisiatif sendiri... yang 3.5... Pemahaman... pertama itu kan dipotoin, itu, handoutnya, terus di copy, taruh di CHATGPT... ada	**PLANNING & PROMPT CONSTRUCTION** (SI, CG, S1)

	kata-kata unfamiliar, langsung aja tanya"	
LN6-LN8	"copy terus tanya sama CHATGPT... terus disuruh translate ke Inggris lagi terus suruh CHATGPT itu ngerangkai kata yang lebih mudah... jadi lebih suruh CHATGPTnya simplify lagi"	**INTERACTION & ANSWER GENERATION** (S2)
LN9-LN11	"biasanya di CHATGPT kan lebih dikasih lengkap... ee.. enggak (tidak membandingkan dengan buku)... kayaknya gak pernah deh (follow-up question)"	**CRITIQUE & REVISION (-)**
LN12-LN13	"buat kata-kata sendiri pertama... terus kita simplify sendiri... soalnya kalo misalnya belajar dengan hand out itu gak terlalu efektif pake CHATGPT... biasanya langsung aja dari hand out"	**INTEGRATION (-)**
LN14-LN15	"dibilang lumayan, mungkin soalnya kan balik lagi tadi kan fokus ke hand out aja jadi mungkin kalo bantuan CHATGPT itu kayak hal-hal yang kecil-kecil... diskusi kelompok lancar"	**TEACHING** (TP)
LN16-LN18	"bisa dibilang ngaruh soalnya kalau misalnya kita mengandalkan dosen itu kayaknya gak efektif... kayaknya bakal sama deh"	**REFLECTION (-)**
MP1-MP5	"Saya mostly berinisiatif itu dari diri saya sendiri... 3.5... banyak vocab yang saya nggak ngerti... Agar saya bisa mendelivery... Jadi saya foto dengan menggunakan prompt Kayak 'Hai ChatGPT...'"	**PLANNING & PROMPT CONSTRUCTION** (SI, CG, S1)

MP6-MP8	"Maksud claiming importance ini gimana... Itu melatih tanya lagi... Apakah udah cukup jelas atau masih ada istilah-istilah Yang mereka masih bingung"	**INTERACTION & ANSWER GENERATION** (S2)
MP9-MP11	"Saya biasanya minta contoh langsung Kepada CHATGPT... Insya Allah saya yakin Itu udah cukup valid... Saya dikasih note di hand outnya... Saya biasanya tambah lagi"	**CRITIQUE & REVISION (-)**
MP12-MP13	"Karena dia bahasa mesin Jadi waktu saya dapet penjelasan dari CHATGPT itu Saya sederhanakan lagi ke bahasa saya... in englishnya itu saya ngambil Pemahaman saya berdasarkan di handouts Sedangkan di bahasanya itu... Dari ChatGPT"	**INTEGRATION** (S4)
MP14-MP15	"CHATGPT... bisa relate ke real world kita... Kalau misalnya mendapat Pertanyaan yang Sulit... Baru kita semua bareng-bareng memutuskan Kayak kita clarify aja Menggunakan AI"	**TEACHING** (TP)
MP16-MP18	"Kita masih membutuhkan seorang guru kan Karena AI gak bakal menggantikan guru... critical thinking itu Jadi gak berjalan kan ya Jadi saya harus lebih awarenya ke sana"	**REFLECTION** (RP)
GT1-GT5	"Inisiatif sendiri... 4.0... Misal di bagian dia memakai teori dari orang luar... Untuk tujuannya, untuk sebatas memahami... Terus saya kasih prom, bantu saya menjelaskan teks ini secara detail."	**PLANNING & PROMPT CONSTRUCTION** (SI, CG, S1)
GT6-GT8	"saya perlu cek lagi, kalau	**INTERACTION &**

	kurang detail, itu saya akan kasih prom yang lebih detail lagi... saya gabungkan antara CGPT dengan Google... saya cari lagi bukunya di Google Scholar."	**ANSWER GENERATION** (S2)
GT9-GT11	"saya lihat lagi, hand out dan penjelasan dari CGPT. Kalau tidak benar, saya kesampingkan CGPT... kebanyakan CGPT itu tidak 100% sama dengan di jurnal... Itu ada perbedaan di situ, ada gap."	**CRITIQUE & REVISION** (S3)
GT12-GT13	"itu hand out saya pegang, nah itu saya bagi perpoin... Saya tidak mengabungkan. Saya hanya berpatok yang mana saya yakin... misal CGPT saya yakin itu benar... saya akan memakai"	**INTEGRATION (-)** (S4-)
GT14-GT15	"Kalau untuk membantu, kurang membantu. Karena di penjelasan CGPT itu, dia sangat rancu... karena CGPT itu bahasanya tinggi, nah itu teman biasanya mengiakan saja. Tidak tahu dia paham atau tidak."	**TEACHING (-)** (TP-)
GT16-GT18	"Sangat ngaruh... semestinya saya tidak akan menggunakan CGPT lagi. Karena saya sekarang jujur lebih percaya grog daripada CGPT. Karena grog itu datanya terupdate."	**REFLECTION** (RP)
NS1-NS5	"Inisiatif sendiri... Yang biasanya 3,5... Bahasanya yang terlalu tinggi itu... minta tolong sama ChatGPT untuk memperjelas... Pertama, handout-nya dipotret dulu."	**PLANNING & PROMPT CONSTRUCTION** (SI, CG, S1)
NS6-NS8	"suruh ringkas yang lebih jelas... tolong persingkat lagi dan perjelas lagi inti dari coding itu	**INTERACTION & ANSWER GENERATION** (S2)

	apa."	
NS9-NS11	"Cuma bahasanya di CHATGPT itu lebih mudah dipahami... Ibaratnya tuh kayak... kata-kata yang lebih manusiawi lah."	**CRITIQUE & REVISION (-)**
NS12-NS13	"Baca ChatGPT -> Pahami inti -> Ngomong spontan... penjelasannya sedikit ngambil di handouts, terus dikembangkan lagi inti-intinya melalui yang kita dapat dari ChatGPT"	**INTEGRATION** (S4)
NS14-NS15	"Menjelaskan lebih pede... Jika Home Group bertanya sulit, konsultasi ke ChatGPT lagi... Memakan waktu, tapi jadi bisa bikin contoh sendiri."	**TEACHING** (TP)
NS16-NS18	"Sangat berpengaruh... bikin lebih jelas... Memahami materi dan contoh-contoh... Kayaknya sama aja."	**REFLECTION (-).**
AN1-AN5	"emang dari diri saya sendiri... 3,5... Pertama, menerjemahkan. Kedua, menjelaskan dengan lebih simpel... saya translatekan dulu dari Google Lens, kemudian saya salin dan saya bawa ke CHATGPT"	**PLANNING & PROMPT CONSTRUCTION** (SI, CG, S1)
AN6-AN8	"nanti CHATGPT juga akan menjelaskan secara detail. Jadi saya itu akan meminta secara satu per satu gitu... saya bisa memahami tanpa harus melihat teks."	**INTERACTION & ANSWER GENERATION** (S2)
AN9-AN11	"mencoba menyamai dengan tools yang lain, kayak Gemini... menanyakan kembali dengan CHATGPT... tolong berikan bukti-buktinya... Jika jawabannya masih tetap tidak seperti yang saya inginkan, maka saya akan	**CRITIQUE & REVISION** (S3)

	pindah ke tools"	
AN12-AN13	"saya akan langsung memberikan, menjelaskan kembali dengan bahasa yang hampir sama... Terkadang bahasanya itu tidak akan berubah dari penjelasan yang di CHATGPT... saya tulis pada hand outnya."	**INTEGRATION (-)**
AN14-AN15	"jika saya menjelaskan materi itu dan tidak menanyakan dengan CHATGPT dulu, itu rasanya saya bingung... tentu yang lain akan bosan menunggu... beberapa teman tidak bisa memahami dari bahasa yang kita sampaikan"	**TEACHING (-)** (TP-)
AN16-AN18	"saya itu sudah terlalu tergantung pada tulis-tulis ini... ini dampak kepada saya juga itu tidak baik... saya ingin pertama saya tidak langsung 100% bergantung... mengurangi interaksi saya dengan CHATGPT."	**REFLECTION** (RP)
SN1-SN5	"Tujuan aku pake CHATGPT tuh Buat bantu aku ngerti Subtopik lebih dalam... Terus aku minta jelasin pake bahasa sederhana... Kadang aku tambahin kayak Jelasin kayak buat Mahasiswa semester lima"	**PLANNING & PROMPT CONSTRUCTION** (SI, CG, S1)
SN6-SN8	"Gak cuma sekali Tanya langsung selesai Biasanya aku tuh Tanya dulu penjelasan umum Habis itu lanjut ke pertanyaan yang lebih spesifik... Kalau aku bisa jelasin ulang pake bahasa aku sendiri"	**INTERACTION & ANSWER GENERATION** (S2)
SN9-SN11	"Aku tuh gak langsung percaya 100% Biasanya Aku bandingkan dulu sama Handout Terus sama	**CRITIQUE & REVISION** (S3)

	buku... Nah kalau isinya sejalan Dan gak bertentangan Berarti aman"	
SN12-SN13	"Gabungin informasi dari CHATGPT Sama materi dari buku atau handout... Tapi dasar teorinya tetap dari sumber Perkuliahan... Kadang aku bikin poin-poin biar gampang Dijelasin"	**INTEGRATION** (S4)
SN14-SN15	"Bikin cak lebih Kayak lebih percaya diri Pas jelasin aja... Kadang aku cek lagi ke CHATGPT... Tapi Aku diskusiin lagi sama kelompok Jadi gak langsung mentah-mentah Diterima"	**TEACHING** (TP)
SN16-SN18	"Yang paling membantu itu Penjelasan ulang Dan contoh-contohnya... Kalo pertanyaannya terlalu umum Jawabannya... Terlalu general... Kedepannya sih mungkin Aku bakal lebih detail lagi dalam menulis Prompt... crosscheck Ke buku"	**REFLECTION** (RP)
DP1-DP5	"tujuan awal untuk pake CHATGPT itu untuk lebih mendalamin lagi... prom awalnya biasanya simple lah ya... buat bahasanya lebih mudah dimengerti dan simple, dan buat seperti kita ingin menjelaskannya ke teman"	**PLANNING & PROMPT CONSTRUCTION** (SI, CG, S1)
DP6-DP8	"Proses interaksinya mungkin ada sedikit ribet lah ya... Kadang juga ngasih per poin-poin... harus kita buat lagi promnya, sedemikian rupa, baru dapet nih, 3 kali, 2 kali, percakapan"	**INTERACTION & ANSWER GENERATION** (S2)
DP9-DP11	"Kita balik lagi ke sumber. Kalau	**CRITIQUE &**

	kita nilai sumber apa yang CHATGPT itu berikan, dan sumbernya itu jelas... itu emang udah dibandingin lah ya. Dari hand out... Kalau nggak sesuai, ya ditulis ulang lagi sampai sesuai."	**REVISION** (S3)
DP12-DP13	"punya seluruh tekstur hand-out tersebut, kita copy ke CHATGPT-nya... Jadi menggabunginnya itu pemikiran kita, hand-out, dan dari hasil dari mesin CHATGPT."	**INTEGRATION** (S4)
DP14-DP15	"Sebenarnya berpengaruh banget lah ya... Kalau teman kelompok kita bingung, CHATGPT lagi bingung kan... Tapi jalannya diskusi itu akan sedikit terhambat dikarenakan pertanyaan"	**TEACHING (-)**
DP16-DP18	"keseluruhan kita menggunakan CHATGPT dalam pembelajaran jigsaw bisa terbilang ya lumayan membantulah... Saya masih tetap sama menggunakan seperti yang saya lakukan"	**REFLECTION (-)**
TS1-TS5	"Awalnya itu rencana, untuk awalnya itu untuk nyari kata kunci dulu biar bisa pahami. Cari kata kunci, berarti baru bikin promnya."	**PLANNING & PROMPT CONSTRUCTION** (SI, CG, S1)
TS6-TS8	"Beberapa, kayaknya sering nanya itu... Kadang itu topiknya itu kan awalnya itu nyambung, pas ditanya lagi itu tidak sesuai, jadi itu nanya lagi... Kata kuncinya tadi kan, kalau udah bisa dipahami, kayak disimpulkan."	**INTERACTION & ANSWER GENERATION** (S2)
TS9-TS11	"Kalau untuk pemahaman itu, ini, tidak sempat lagi untuk nyari	**CRITIQUE & REVISION (-)**:

	buku lain. Tapi, sempat mengingat penjelasan dari dosen... Bikin contoh. Memastikan lagi, apa benar apa tidak"	
TS12-TS13	"Biasanya tuh, materi awal itu ditulis, dan itu dihapal... Disuruh CHATGPT kesimpulkan, dari hand-out tuh... sering itu bikin nomor... Poin-poin."	**INTEGRATION** (S4)
TS14-TS15	"Seringnya itu tidak rasa percaya diri itu lah... Tidak buka, tapi kayaknya dibantu sama teman menjawab... Pertanyaan sulit. Terus sering ngebantu walaupun tidak sesuai ekspetasi"	**TEACHING** (TP)
TS16-TS18	"Pengennya merubah cara kerjanya itu lagi. Cara penggunaan CHATGPT itu lagi. Mulai dari frontnya sama kata kuncinya."	**REFLECTION** (RP)
RD1-RD5	"untuk gunain CHATGPT itu buat lebih memahaminya saja, lebih memahaminya lebih spesifik... aku biasanya itu minta untuk penjelasannya itu lebih spesifik saja... aku upload tuh ke CHATGPT-nya tuh, minta dianalisis dulu"	**PLANNING & PROMPT CONSTRUCTION** (SI, CG, S1)
RD6-RD8	"minta ke CHATGPT itu buat jelaskan lebih detail, yaitu poin-nya... minta contohnya yang lebih... contoh yang dihidupkan nyatanya... Kalau aku merasa lebih paham pas gunain CHATGPT itu, baru aku ngerasa oh ini jawabannya pas"	**INTERACTION & ANSWER GENERATION** (S2)
RD9-RD11	"Biasanya ya tidak terpaku di CHATGPT aja, bisa aku searching di tempat lain... Terus	**CRITIQUE & REVISION (-)**

	bisa juga nanya tuh, nanya sama kawan yang lain... bisa juga nanya sama mister... Aku biasanya searching ke tempat lain"	
RD12-RD13	"aku susun ulang tuh... Aku simpulkan sendiri gitu kan. Dari yang aku baca di hand out terus dari yang dijelasin si CHATGPT ini... Kayak mana kita ngobrol sama kawan"	**INTEGRATION** (S4)
RD14-RD15	*(Tidak ada teks verbatim eksplisit di dump untuk bagian ini, diwakili penggabungan S4)* "Terkadang kan mereka tuh kayak maksudnya gimana sih ini kan penjelasannya masih umumnya. Jadi aku bisa lebih... menjelaskannya tuh lebih spesifik lagi dengan bantuan penjelasan dari si CHATGPT"	**TEACHING** (TP)
RD16-RD18	"Lebih mudah memahami... aku pasti memperbaiki cara itu nge-PROM-nya aja. Terkadang kalau kita salah PROM kan... agak melenceng juga jawabannya"	**REFLECTION** (RP)
DF1-DF5	"Pastinya untuk memahami materinya... dengan CHATGPT bisa membantu kita untuk mengerti... Tolong ambil key point dari materi ini dan n dijelaskan dengan bahasa yang mudah mengerti"	**PLANNING & PROMPT CONSTRUCTION** (S1)
DF6-DF8	"Saya pindahkan foto pakai Google Translate... saya masukkan semua teksnya ke CHATGPT... tolong simpulkan dan ambilkan key point-key point... Kalau aku belum mengerti, aku tanya lagi sama	**INTERACTION & ANSWER GENERATION** (S2)

	CHATGPT."	
DF9-DF11	"Paling membandingkan dengan handout yang dikasih ya... Kalau aku sendiri sih udah yakin gitu dengan CHATGPT... Kalau ketemu jawaban yang kurang jelas aku bakal materi yang aku kasih sebelumnya Aku copy lagi"	**CRITIQUE & REVISION (-)**
DF12-DF13	"Tinggal digabungin aja gitu kan Supaya menggunakan Bahasa kita sendiri... Kita menilaikan gitu Apa yang CHATGPT Dengan yang di hand-out... Kita tulis dengan Kata-kata kita sendiri"	**INTEGRATION** (S4)
DF14-DF15	"Mempengaruhi ya... Tergantung Kalau bisa dijawab sendiri Kalau misalkan gak bisa Jangan pastiin dengan CHATGPT... Kalau dengan alur diskusinya sih Pastinya Apa ya Terhambat"	**TEACHING** (TP)
DF16-DF18	"Sangat berpengaruh Bisa dibilang Kayak 80% Atau 70-80%... Kalau diganti sih Menurut saya tidak ada, tetap aja sama... Tidak ada yang berubah Dengan cara yang sama"	**REFLECTION (-)**
RS1-RS5	"Saya ingin men simplify Men simplify Kata-kata yang udah ada di handout... menerjemahkannya Secara langsung, secara literal... Saya foto dulu... Please simplify this handout"	**PLANNING & PROMPT CONSTRUCTION** (S1)
RS6-RS8	"Saya suruh CHATGPT ini merancang nih Kata-kata yang bagus untuk Agar temen-temen saya paham... Saya itu baca poin-poin yang penting aja"	**INTERACTION & ANSWER GENERATION** (S2)
RS9-RS11	"Saya menilai CHATGPT Dari form yang saya buat tadi Sangat	**CRITIQUE & REVISION (-)**

	kredibel... Biasanya di akhir sesi Ada reflection lagi... Bakalan di confirm lagi Dari Si dosen... Biasanya Memang namanya robot"	
RS12-RS13	"Saya fotoin dulu Saya pelajari dulu... saya buat CHATGPT untuk membuatkan saya Bagaimana kata-kata Yang agar teman saya itu Lebih mudah untuk mencerna"	**INTEGRATION** (S4)
RS14-RS15	"Dampaknya itu sangat berdampak... Kalau teman-teman saya itu Tidak seluruhnya itu Ada level-level... CHATGPT berperan aktif Di situ Jess Untuk Mencari teman-teman yang Kurang gampang paham"	**TEACHING** (TP)
RS16-RS18	"Sangat-sangat mempengaruhi... kita harus ada yang namanya tracking atau crosscheck dulu... Saya tidak akan mengganti Teknik saya untuk menggunakan CHATGPT Karena Menurut saya sendiri itu adalah Cara yang paling efektif"	**REFLECTION (-)**
GC1-GC5	"Biar lebih cepat paham aja sih... di CHATGPT langsung bisa tolong ringkas, langsung bisa diringkas materinya... case study itu gimana"	**PLANNING & PROMPT CONSTRUCTION** (SI, CG, S1)
GC6-GC8	"pokoknya prompt-nya itu lengkap, mulai dari pengertiannya, terus cara penggunaannya gimana... minta informasi detailnya gitu dari CHATGPT-nya... minta CHATGPT untuk rangkum dari hand-out"	**INTERACTION & ANSWER GENERATION** (S2)
GC9-GC11	"Kalau Gita lebih ke penjelasan	**CRITIQUE &**

	dosennya sih... kalau misalnya 80 sampai 70 persen hal yang disampaikan CHATGPT itu, ada benarnya... berarti kita udah kayak percaya sama CHATGPT."	**REVISION (-)**
GC12-GC13	"kita catat poin dari CHATGPT yang belum ada di handout apa... Iya, pakai bahasa sendiri. Dicatat pakai bahasa sendiri."	**INTEGRATION** (S4)
GC14-GC15	"kalau misalnya pakai CHATGPT, bisa langsung diringkas pakai bahasa kita sendiri... Terjeda paling cuman sebentar ya... jawab sebisa kita dulu kan."	**TEACHING** (TP)
GC16-GC18	"dalam waktu yang singkat belajar itu tuh buat mahamin materinya, CHATGPT bantu banget... Kalau kita tetap bakal pakai cara ini sih... Kalau untuk dirubah mungkin belum kepikiran"	**REFLECTION (-)**

DATA CODING RQ 2-ROLES OF CHATGPT IN JIGSAW LEARNING

Abbreviations:

6 roles		
1	Socratic Opponent	SO
2	Guide on the side	GOS
3	Exploratorium	EP
4	Collaboration Coach	CC
5	Possibility Engine	PE
6	Study Buddy	SB

Example of the codename : LA1
Read as : Students initial number one, transcript number two, spesifik roles number three,

CODE	TRANSCRIPT	ROLES
LA-1/2	"mikir tapi kalau aku suruh mikir kritis lah mungkin jawaban ini masih tebak-tebak... kok beda dari yang jawaban kamu tadi di awal terus jangan jelasin lagi"	**SO (-)**
LA-3/4	"sangat membantu, bahkan dia kalau misalkan kita udah merasa ini pas, terus tanyain lagi dia pasti bilang ini penjelasannya... kalau misalkan kita lebih jelaskan lagi, rinsikan lagi ditanyakan lagi, baru dia jelasin"	**GOS**
LA-5/6	"misalkan awal dari handout disebutkan beberapa nama disana itu pasti aku tanyain... coba dari sana itu, lebih jelaskan lagi dari ketiga itu... masih bisa karena dari awal itu sudah diambil intinya"	**EP**
LA-7/9	"kalau lagi di kelompok kan sudah ada pembagian tugas... nah bantunya itu paling aku tanyain lagi sudah itu penjelasan masing-masing... tanyain lagi di CHATGPT."	**CC (-)**
LA-10/11	"Terus pas aku jelasin yang dari CHATGPT, yang lebih mudah dimengerti itu, jadi mereka paham...	**PE**

	ya, pede... Jadi Cak duo jawaban dari CHATGPT itu."	
LA-12/13	"ngasih penjelasan yang beda dari yang aku tahu itu kan. Nah terus, pastinya aku nanya lagi tuh... Saya masih bingung di bagian ini, ini, terus tolong jelasin lagi lebih detail."	**SB**
SP-1/2	"biasanya jarang karena biasanya apa yang diminta... CHATGPT menyediakan mungkin 80% jawaban... jadi jarang sekali CHATGPT memaksa saya jawabannya harus berpikir lagi"	**SO (-)**
SP-3/4	"saya butuh jawaban yang lebih manusiawi dari dosen... cuman menurut saya lebih membantu yang dijelaskan oleh dosen... saya mungkin tipikal yang terpaku pada CHATGPT"	**GOS (-)**
SP-5/6	"memberikan pertama jawaban yang sangat ringkas... saya minta tolong jelaskan lebih lebih kompleks lagi... untuk penjelasan yang lebih panjang atau mendalam saya kesulitan untuk mengingat hal tersebut"	**EP (-)**
SP-7/9	"membantu pada bagian kesimpulan... kalau bagi tugas enggak... saya lebih ke tergantung ke CHATGPT sih... daripada nanya temen lebih baik kita coba sendiri menggunakan CHATGPT"	**CC (-)**
SP-10/11	"iya, ChatGpt mempermudah... karena sudah terstruktur dan materinya lebih luas lagi... membuat saya pede... setidaknya saya punya jawaban yang sudah tersimpan jadi tidak terlalu kosong."	**PE**
SP-12/13	"Biasanya saya membuat prompt lagi atau bertanya lagi... Masih memerlukan ChatGpt untuk	**SB**

	memastikan pemahaman benar karena kalau hari ini bisa tapi belum tentu selanjutnya."	
LN-1/2	"biasanya jarang karena biasanya apa yang diminta... CHATGPT menyediakan mungkin 80% jawaban... jadi jarang sekali CHATGPT memaksa saya jawabannya harus berpikir lagi"	**SO (-)**
LN-3/4	"saya butuh jawaban yang lebih manusiawi dari dosen... cuman menurut saya lebih membantu yang dijelaskan oleh dosen... saya mungkin tipikal yang terpaku pada CHATGPT"	**GOS (-)**
LN-5/6	"memberikan pertama jawaban yang sangat ringkas... saya minta tolong jelaskan lebih lebih kompleks lagi... untuk penjelasan yang lebih panjang atau mendalam saya kesulitan untuk mengingat hal tersebut"	**EP (-)**
LN-7/9	"saya lebih ke tergantung ke CHATGPT sih... daripada nanya temen lebih baik kita coba sendiri menggunakan CHATGPT"	**CC (-)**
LN-10/11	"iya, ChatGpt mempermudah... karena sudah terstruktur dan materinya lebih luas lagi... membuat saya pede... setidaknya saya punya jawaban yang sudah tersimpan jadi tidak terlalu kosong."	**PE**
LN-12/13	"Biasanya saya membuat prompt lagi atau bertanya lagi... Masih memerlukan ChatGpt untuk memastikan pemahaman benar karena kalau hari ini bisa tapi belum tentu selanjutnya."	**SB**
MP-1/2	"biasanya jarang karena biasanya apa yang diminta... CHATGPT menyediakan mungkin 80%	**SO (-)**

	jawaban... jadi jarang sekali CHATGPT memaksa saya jawabannya harus berpikir lagi"	
MP-3/4	"saya butuh jawaban yang lebih manusiawi dari dosen... cuman menurut saya lebih membantu yang dijelaskan oleh dosen... saya mungkin tipikal yang terpaku pada CHATGPT"	**GOS (-)**
MP-5/6	"memberikan pertama jawaban yang sangat ringkas... saya minta tolong jelaskan lebih lebih kompleks lagi... untuk penjelasan yang lebih panjang atau mendalam saya kesulitan untuk mengingat hal tersebut"	**EP (-)**
MP-7/9	"saya lebih ke tergantung ke CHATGPT sih... daripada nanya temen lebih baik kita coba sendiri menggunakan CHATGPT"	**CC (-)**
MP-10/11	"iya, ChatGpt mempermudah... karena sudah terstruktur dan materinya lebih luas lagi... membuat saya pede... setidaknya saya punya jawaban yang sudah tersimpan jadi tidak terlalu kosong."	**PE**
MP-12/13	"Biasanya saya membuat prompt lagi atau bertanya lagi... Masih memerlukan ChatGpt untuk memastikan pemahaman benar karena kalau hari ini bisa tapi belum tentu selanjutnya."	**SB**
NS-1/2	"Kayaknya nggak pernah deh... Nggak pernah"	**SO (-)**
NS-3/4	"Nanya lebih dalam sama CHATGPT... Sepertinya saya belum deh menjelaskan tentang itu... Jadi agak gimana ya menjawab pertanyaannya"	**GOS (-)**
NS-5/6	"menjelaskan secara rinci gimana jenisnya... Kalau lihat catatan bisa.	**EP (-)**

	Oke, tapi kalau tanpa cat CHATGPT? Tanpa cat CHATGPT Jadi, mungkin agak lupa-lupa."	
NS-7/9	"Nyimpulkan ide-ide utama... Lebih mandiri, menurut saya. Karena dengan kita tanya sama cat CHATGPT itu... kita lebih bisa menjawab pertanyaan teman-teman dengan nalar."	**CC (-)**
NS-10/11	"Iya, membantu sekali... Iya, lebih pede pastinya."	**PE**
NS-12/13	"Pernah... pas kita minta tolong sama CHATGPT, tetap aja nggak ngerti. Jadi harus berulang-ulang sebelum menjelaskan... Butuh CHATGPT lagi."	**SB**
GT-1/2	"CHATGPT memaksa kita untuk berpikir secara kritis... ada jauh perbedaannya dari yang didosen ajarkan dengan CHATGPT... Sepertinya tidak pernah."	**SO (-)**
GT-3/4	"CHATGPT tidak membantu dalam bentuk itu... jujur saya tidak menggunakan CHATGPT. Karena pemahaman dari manusia kunci itu memberikan saya pemahaman yang luar biasa."	**GOS (-)**
GT-5/6	"Kita bisa membandingkan contoh yang ada di hand out dan contoh yang ada di CHATGPT... Dari CHATGPT ya, itu hilang. Dari CHATGPT hilang, tetapi dari pemahaman yang musti diberikan... saya masih ingat"	**EP (-)**
GT-7/9	"Kalau di kelompok sendiri, itu membantunya ketika menentukan kesimpulan... Saya lebih mandiri."	**CC (-)**
GT-10/11	"Sangat membantu. Karena kalimatnya sederhana dan teman-teman mudah mengerti... Tidak.	**PE (-)**

	Kenapa? Karena ada satu momen itu saya cari di CHATGPT tetapi ketika saya menjelaskan itu ternyata salah"	
GT-12/13	"Saya gak pernah. Karena itu ada momen saya memberikan prom ke CHATGPT itu harus dikasih prom lebih banyak lagi... Untuk pemahaman benar itu saya masih butuh"	**SB (-)**
AN-1/2	"kalau ditanya ada momen nggak kita harus untuk berpikir lebih kritis justru menurut saya. CHATGPT itu membuat kita jadi tidak berfikir kritis... sejauh saya memggunakan nya, enggak pernah."	**SO (-)**
AN-3/4	"saya akan samakan dengan penjelasan yang dari sumber lain... CHATGPT akan menjelaskan lebih gamblang lagi mengenai dua konsep ini... CHATGPT akan memberikan bahasa yang lebih simpel"	**GOS**
AN-5/6	"dia akan menjelaskan sesuai porsi yang kita minta itu... mungkin besok sudah lupa. Jangankan next week, besoknya pun sudah lupa."	**EP (-)**
AN-7/9	"kalau ditanya dalam konsep kelompok lebih mandiri atau bergantung, itu sebenarnya kami sudah dituntut mandiri masing-masing... kalau ditanya membantu atau nggak, itu bisa dibilang tidak membantu."	**CC (-)**
AN-10/11	"kita perlu untuk membuatnya lebih simpel lagi dengan bahasa kita sendiri supaya orang lain juga lebih paham... Jelas lebih pede."	**PE**
AN-12/13	"saya di situ meminta CHATGPT lagi untuk menjelaskan seperti kayak, maaf, ini bukan seperti penjelasan yang saya inginkan...	**SB**

	Jelas, sebenarnya masih sangat butuh bantuan CHATGPT untuk memastikannya."	
SN-1/2	"kalau ditanya ada momen nggak kita harus untuk berpikir lebih kritis justru menurut saya. CHATGPT itu membuat kita jadi tidak berfikir kritis... sejauh saya memggunakan nya, enggak pernah."	**SO (-)**
SN-3/4	"saya akan samakan dengan penjelasan yang dari sumber lain... CHATGPT akan menjelaskan lebih gamblang lagi mengenai dua konsep ini... CHATGPT akan memberikan bahasa yang lebih simpel"	**GOS**
SN-5/6	"dia akan menjelaskan sesuai porsi yang kita minta itu... mungkin besok sudah lupa. Jangankan next week, besoknya pun sudah lupa."	**EP (-)**
SN-7/9	"kalau ditanya dalam konsep kelompok lebih mandiri atau bergantung, itu sebenarnya kami sudah dituntut mandiri masing-masing... kalau ditanya membantu atau nggak, itu bisa dibilang tidak membantu."	**CC (-)**
SN-10/11	"kita perlu untuk membuatnya lebih simpel lagi dengan bahasa kita sendiri supaya orang lain juga lebih paham... Jelas lebih pede."	**PE**
SN-12/13	"saya di situ meminta CHATGPT lagi untuk menjelaskan seperti kayak, maaf, ini bukan seperti penjelasan yang saya inginkan... Jelas, sebenarnya masih sangat butuh bantuan CHATGPT untuk memastikannya."	**SB**
TS-1/2	"Jadi gak mikir lagi, kayak ini, gak tau lagi habis itu, pas kita presentasi tuh, hilang... Pernah. Perbedaan	**SO (-)**

	kuanti dan kuali itu... Kalau di ChatGPT ini, sering ngaur"	
TS-3/4	"Dia memberi contoh. Memberi contoh satu per satu... kayaknya belum ada cari yang itu sih."	**GOS (-)**
TS-5/6	"Biasanya ChatGPT itu memberi contoh sama pandangan dari ahli... Menghapal, jadi dengan cara menghapal... Bisa."	**EP**
TS-7/9	"Ada yang bagian topik sama menyimpulkan bagian ini... Terkadang tuh, ChatGPT itu udah benar, tapi lebih pahamnya nanti lagi ketika teman itu memberi ide-idenya... mandiri juga sama penggunaan ChatGPT nya"	**CC (-)**
TS-10/11	"Sering, ChatGPT itu menyimpulkan lebih secara general dari spesifik... Pede. Karena hasilnya itu kan dari ChatGPT."	**PE**
TS-12/13	"Pernah karena ChatGPT itu kan kalau kita tidak bisa mendesain kata-katanya... Masih menggunakan ChatGPT karena bahasanya mudah dipahami"	**SB**
RD-1/2	"otomatis aku tuh langsung mikir... di kehidupan sehari-hari bagaimana... ternyata terdapat beberapa banyak sudut pandang."	**SO (-)**
RD-3/4	"sama seperti diberikan contoh, terus di-explain-kan lagi, lebih disangkutkan ke kehidupan nyata... Biasanya kan dijelaskan dulu satu per satu"	**GOS**
RD-5/6	"Biasanya aku minta beberapa definisi menurut para ahli... Bisa"	**EP**
RD-7/9	"Yang penyimpulan ide-ide utama... Lebih mandiri... Membantu. Terus, kalau dampaknya ke kualitas ngajar ke teman-temanku. Jadi	**CC (-)**

	penjelasannya lebih spesifik"	
RD-10/11	"jadi saya menjelaskan ke teman-teman bisa jadi lebih spesifik dan memberikan contoh yang lebih bisa dimengerti... Karena saya lebih menjelaskannya, lebih percaya diri"	**PE**
RD-12/13	"kalau kita salah prom sedikit saja, penjelasannya beda... Jadi biasanya itu promnya harus dilebih spesifikan lagi... Kalau saya pribadi, lebih ke topik-topik tertentu saja yang kalau memang sulit"	**SB**
DP-1/2	"sangat-sangat tidak ataupun sangat-sangat jarang terjadi Karena apa yang dijawabkan CHATGPT tersebut telah memuaskan... Jadi mungkin sedikit kurang kritis ya... adapun ketidasamaan pemikiran kita... saya temukan bahwasannya Itu yang memang benar"	**SO (-)**
DP-3/4	"Tentunya ChatGPT menjelaskan hal-hal yang memang sepantasnya dijelaskan... tidak puas dengan apa yang saya inginkan Jadi tentunya kalau saya bilang itu kurang membantu"	**GOS (-)**
DP-5/6	"dibuat kesimpulannya dipermudah pokoknya Jadi kita cepat paham... Jadi apabila kita tidak mengulik kembali pada saat malam... Jadi masih perlu lah ya bantuan dari ChatGPT."	**EP (-)**
DP-7/9	"saya menggunakan 100% value dari ChatGPT... nyimpulkan... Karena mungkin penjelasan dari teman-teman juga sama bingungnya dengan saya. Jadi lebih baik kita ambil ke ChatGPT aja."	**CC (-)**
DP-10/11	"kayaknya saya belum pernh ngakses yang hal tersebut deh...	**PE (-)**

	jawaban dari ChatGPT meningkatkan strata kepercayaan diri saya"	
DP-12/13	"Sebenarnya ada ya, pada saat kita memang tidak mengetahui konsep... Jadi saya masih ngerasa perlu bantuan ChatGPT buat mastiin"	**SB**
DF-1/2	"nggak sepenuhnya 100% percaya dengan CHATGPT ya jadi kita itu, misalkan ada beberapa kata ataupun yang dia itu perlu butuh analitis yang lebih dalam... nggak pernah sih nggak pernah ya, nggak pernah saya nggak pernah ketemu kayak gitu."	**SO (-)**
DF-3/4	"saya minta itu CHATGPT itu dalam bentuk yang detail dan supaya saya pahami mendalam... bisa saya gunakan sebagai contoh."	**GOS**
DF-5/6	"bisa membedakan lebih detail apa bedaannya... kalau saya masih ingat sih masih bisa asalkan saya masih ingat konsepnya"	**EP**
DF-7/9	"CHATGPT itu lebih ke bantu individu masing-masing ya... kalau aku sih lebih mandiri ke CHATGPT ya soalnya terkadang teman-teman itu pasti menggunakan CHATGPT juga"	**CC (-)**
DF-10/11	"membantuku bisa mengambil key concept atau key point jadi lebih mudah untuk dijelasin oleh teman-teman... iya lebih pede sih"	**PE**
DF-12/13	"aku sih gak ada ya karena ketika aku itu sebelum menjelaskan ke teman-teman itu aku buat promt CHATGPT itu sampai aku ngerti... ya masih perlu sih"	**SB (-)**
RS-1/2	"membuat saya menjadi malas untuk berpikir lebih jauh... kayaknya aku nggak pernah dapet untuk lebih ke	**SO (-)**

	informasi di situ... langsung terima ya, tanpa ada perdebatan"	
RS-3/4	"saya hanya men-simplify dan juga membuat inti dari yang diberikan oleh CHATGPT... CHATGPT itu hanya membantu saya untuk mensimplify... kalau untuk berpikir mengeksplore lebih jauh itu kurang, Jess."	**GOS (-)**
RS-5/6	"Narrative inquiry itu lebih, bisa dieksplore lebih jauh... Kalau jangka panjangnya sih kurang sih, Jess... beberapa minggu sesudah kita belajar hal tersebut aja, kayaknya move on dari materi itu aja, kayaknya lu udah luput"	**EP (-)**
RS-7/9	"orang itu ini apa namanya? Hand out satu, orang keduanya hand out dua... kami membagi tugas... teman-teman saya yang... kurang mengerti akan topik tersebut, menggunakan CHATGPT, Jess... kami itu menjadi sangat-sangat tergantung"	**CC (-)**
RS-10/11	"sangat-sangat membantu kami untuk men- simplify... CHATGPT disitu sangat-sangat membantu saya Jess untuk memahami informasi yang kemungkinan teman saya nggak ngerti"	**PE**
RS-12/13	"CHATGPT itu Jess sangat-sangat bisa membuat saya mudah untuk mempelajari... terkadang juga saya masih kadang lupa, kadang juga masih misunderstanding"	**SB**
GC-1/2	"Sejauh ini belum pernah ketemu hal kayak gitu ya, soalnya kayak sedikit banyaknya kayak sama aja penjelasan dari CHATGPT, dari handout"	**SO (-)**
GC-3/4	"kalau kita gak ngerti kan kita masih	**GOS (-)**

	bisa nanyakan, ini maksudnya gimana ya... Jadi gak ngambil dari CHATGPT lah ya, kalo untuk membawa pemahaman atau ngajar di kelompok gitu."	
GC-5/6	"baca sambil bedain mana yang lebih real life sama kehidupan kita sebagai mahasiswa... kalau lihat sedikit-sedikit... kira kira masih bisa mungkin 50% lah ya. Kayak udah ketergantungan sama AI"	**EP (-)**
GC-7/9	"jadi kayak belajar bareng-bareng sih... Lebih bergantung sih sama CHATGPT-nya... kalau misalnya memang mau dibagi-bagi itu misalnya kami orang empat paragrafnya itu ada empat jadi bagi satu paragraf satu orang habis itu pahami sendiri-sendiri buka CHATGPT"	**CC (-)**
GC-10/11	"kayak udah cukup untuk kita presentasiin dan bagiin ke teman-teman... bikin lebih pede sih karena kayak apa ya bahasanya udah dipahami"	**PE**
GC-12/13	"miskomunikasi dari ininya sih... jadi tuh kayak kita bingung sendiri ini maksudnya gimana sih kalau belum pakai bahasa yang sederhana... ketergantungan sama CHATGPT kan jadi kayak udah percaya 100% sama CHATGPT"	**SB**

DOCUMENT ANALYSIS RESULT OF

SYLABUS QUALITATIVE RESEARCH METHOD COURSE

Table 7 - Blueprint Documentation Checklist: Jigsaw Learning Implementation in the Syllabus of Qualitative Research Method Course

NO	CRITERION	INDICATORS	EVIDENCE TO VERIFY	CHECK (✓)	NOTES/FINDINGS
1	**Content Divisibility**	Course content can be divided into expert-group segments	Presence of clearly separated topics across ≥ 8 instructional sessions (excluding introduction, exams, and final project)	**(✓)**	List eligible weeks/topics **Eligible Weeks:** **1. 13 Weeks** (Weeks 2-7 and 9-15). **2.** The material is clearly divided, such as a. *Key Concepts of Qualitative Research Methods* (Week 2) *b. Qualitative Research Background* (Weeks 3-5) c. *Qualitative Research Data Collection Instruments* (Weeks 9-12).
2	**Collaborative Learning Alignment**	Syllabus explicitly signals collaborative/cooperative pedagogies	Mentions of "Collaborative Learning," "Cooperative Learning,"	**(✓)**	Direct quote(s) from syllabus: ***"Collaborative Learning" is explicitly stated as***

			"Group Learning," or "Jigsaw Method" in the pedagogical approach section		***the learning model in Weeks 4, 5, 11, and 12.***
3	**Assessment Structure for Jigsaw**	Assessment design reflects individual accountability and positive interdependence	Grading components include identifiable percentages for participation, group work, and individual tasks/assignments	**(✓)**	Detailed breakdown: ***1. Active Participation (15%),*** ***2. Assignments/Quiz (15%), and Projects assigned by the lecturer.*** ***This assessment supports individual accountability and positive interdependence.***
4	**Implementation Duration**	Adequate time allocated for at least one full Jigsaw cycle	Minimum of 8 weeks containing content suitable for expert/home group rotation	**(✓)**	Total eligible weeks: 8*/16* This syllabus does not specifically explain the duration of the Jigsaw learning process. However, according to the lecturer, Jigsaw was implemented around 8 times in one semester, particularly during topics such as qualitative concepts, qualitative approaches, and qualitative research background, covering a total of 8 meetings.

5	**Technology and AI Integration Readiness**	Course materials allow or encourage technology-supported learning	Syllabus mentions technology use, online platforms, digital resources, OR does not explicitly restrict AI/ChatGPT use	**(✓)**	Relevant statements/phrases: ***General objective number 3 requires students to be proficient in utilizing technology for research.*** ***The assessment also uses online quizzes. There is no written prohibition on AI use.***

Detailed & Comprehensive Analysis per Criterion

1. Content Divisibility - Highly Adequate

The material in this syllabus is structured systematically and progressively, starting from *Key Concepts* to *Research Discussion*. This detailed division (e.g., *Data Collection Instruments* is allocated for 4 weeks from week 9 to 12) is ideal for dividing students into expert groups in the Jigsaw method.

2. Collaborative Learning Alignment - Highly Relevant

This syllabus has explicitly adopted Jigsaw principles. The *Learning Model* column in weeks 4, 5, 11, and 12 directly mentions "Collaborative Learning" alongside Discovery Learning. This serves as a strong foundation that the lecturer has conditioned the class for group learning.

3. Assessment Structure - Supports Jigsaw Pedagogy

The Jigsaw method requires both individual and group assessments. This syllabus meets these criteria by assigning a weight of 15% for Class Attendance, 15% for

Active Participation, and 15% for Assignments/Quiz. Additionally, the inclusion of Projects as an assessment tool provides room for evaluating group collaboration.

4. Implementation Duration -

Although the course syllabus does not explicitly detail the exact duration of the Jigsaw learning process, clarification from the lecturer confirmed that the method was implemented approximately 8 times in one semester. These 8 meetings were specifically dedicated to covering core materials, such as qualitative concepts, qualitative approaches, and qualitative research backgrounds.

5. Technology and AI Integration Readiness - Highly Open This is a crucial point for your ChatGPT 3.5 variable. The syllabus openly demands students to be "proficient in utilizing technology for research" in searching for references, writing research proposals/reports, and reporting findings. The evaluation tools also involve online quizzes. This openness serves as strong validation that integrating ChatGPT to assist students in the expert group phase aligns with the course objectives

The document analysis shows that this *Qualitative Research Methods* course syllabus is 100% validated and eligible to be used as the research subject for the implementation of the ChatGPT-assisted Jigsaw method.

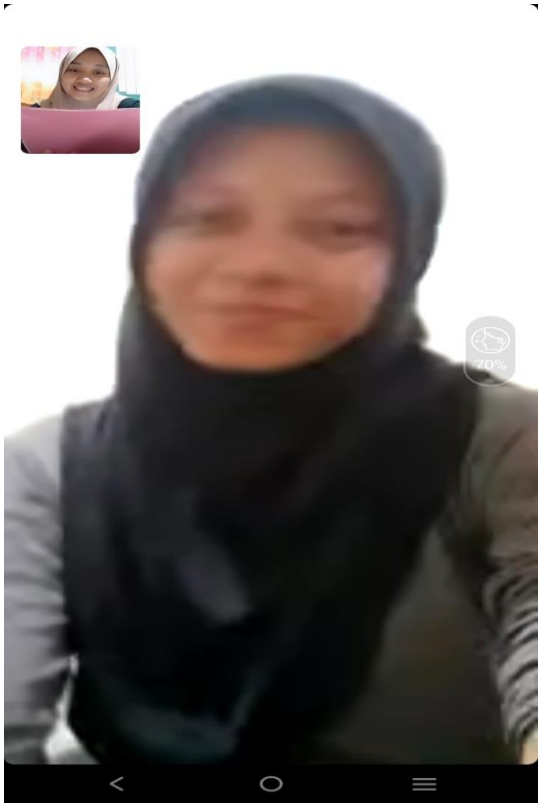
Based on the document analysis of the Qualitative Research Method syllabus, the term 'Jigsaw' is not explicitly written. However, the syllabus strictly mandates the use of 'Collaborative Learning' and 'Discussion' as the primary learning models (identified in Weeks 2, 4, 5, 9, 11, and 12). According to Johnson & Johnson and Aronson, the Jigsaw method is fundamentally one of the most prominent structural models of Collaborative Learning. Therefore, the lecturer's decision to operationalize this 'Collaborative Learning' mandate through the Jigsaw method in the classroom is highly consistent and theoretically aligned with the syllabus.

Table . Mapping of Syllabus Topics to Jigsaw Method Implementation

Week (Minggu)	Topic (Topik Materi)	Learning Model (Berdasarkan Silabus)	Real Implementation (interview)
Week 2	Key Concepts of Qualitative	Collaborative Learning	Jigsaw Method
Week 4	Qualitative Research Background	Collaborative Learning	Jigsaw Method
Week 5	Qualitative Research Background	Collaborative Learning	Jigsaw Method
Week 9	Data Collection Instruments	Collaborative Learning	Jigsaw Method
Week 10	Data Collection Instruments	Discussion / Discovery	Jigsaw Method
Week 11	Data Collection Instruments	Collaborative Learning	Jigsaw Method
Week 12	Qualitative Research Findings	Collaborative Learning	Jigsaw Method
Week 13	Qualitative Research Findings	Discussion	Jigsaw Method

This table illustrates the triangulation between the syllabus document and the real classroom implementation. While the syllabus designates 8 specific meetings for 'Collaborative Learning' and 'Discussion', the interview data from the lecturer confirms that these exact 8 sessions were executed using the Jigsaw technique. The syllabus requires Collaborative Learning, which the lecturer implemented practically using the Jigsaw method.

DOCUMENTATION

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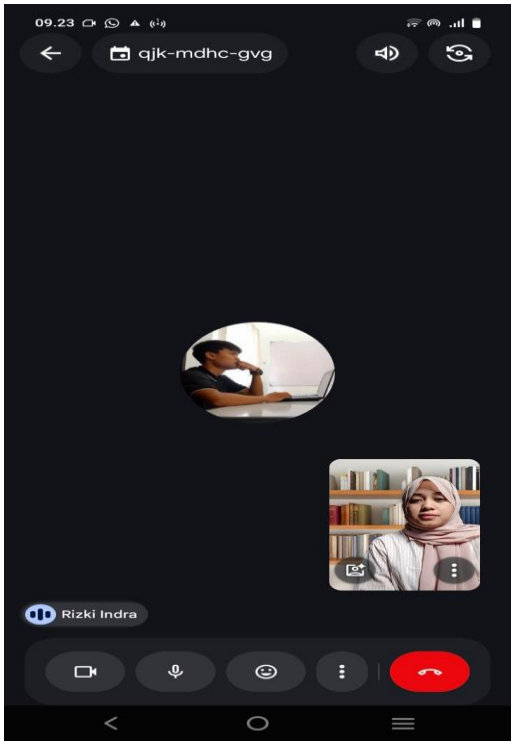
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AUTOBIOGRAPHY

Jesi Nuraini is the author of this thesis, born on June 23, 2004, in Curup. As the youngest daughter of Indra Gunawan and Ratini Edawati, her academic journey is a narrative of exceptional resilience and self-reliance. She began her formal education at SD 12 Rejang Lebong in 2010, followed by SMPN 1 Rejang Lebong in 2016, and SMA N 3 Rejang Lebong in 2019. Before embarking on her higher education, the author demonstrated immense dedication by working as a domestic helper, babysitter, and courier to support herself financially, earning a modest daily wage while nurturing the dream of a university education.

Despite being the first in her family to pursue a degree, the author overcame financial uncertainties and hesitation through sheer determination. In 2022, she enrolled at IAIN Curup, majoring in the English Tadris Study Program. Her academic excellence was recognized early on, leading her to secure the KIP Kuliah scholarship. Throughout her college years, she maintained a near-perfect GPA, earning the prestigious award for the Highest GPA among KIP Kuliah Students in both 2024 and 2025.

The author's university life was marked by remarkable achievements in both academic and non-academic arenas. She was

recognized for the Best Articulation at the 1st Elesvita International Seminar hosted by UPTD IAIN Curup. Her expertise as a speaker was showcased globally as an International Speaker at the Corolla International Conference 2026 and the IBBS Student International Seminar in India. Furthermore, she secured the 1st Place in the Inspirational Storytelling Competition, 3rd Place in an English Debate Competition, and 2nd Place in the Learning Media Design Competition. Remarkably, she balanced these achievements while working as a private tutor from house to house to meet her daily needs.

The author's perseverance culminated in completing her undergraduate studies in just 3.5 years. Her thesis provides a qualitative analysis of how artificial intelligence integrates into collaborative learning models. The author hopes that this research will contribute meaningfully to the field of education and technology. Lastly, she expresses profound gratitude for the completion of this thesis, hoping it serves as an inspiration for others to pursue their dreams regardless of their starting point.