



The Role of Communication Skills in Guided Inquiry Process to Improve Critical Thinking Skills

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Abstract: This article examines how in an educational setting communication skills can enhance critical thinking abilities through guided inquiry. Human resources (HR) must be improved in light of the Industrial Revolution 4.0, but obstacles to learning include low student engagement, a lack of enthusiasm, and a lack of critical thinking abilities. Although communication skills are frequently a barrier, guided inquiry is recognized as a learning model capable of advancing students' critical thinking abilities. The activity steps in guided inquiry are covered in this article, along with pertinent communication skills such as explanation of delivery, material mastery, group interaction, and responding. It is highlighted how critical thinking abilities and communication skills are linked in 21st-century learning. It is widely acknowledged that effective verbal, written, and listening communication skills are essential for guided inquiry. Source triangulation was employed as a qualitative research method with a post-positivism approach to gather data. The article emphasizes how communication skills help students develop their critical thinking abilities by enabling them to assess and connect information to a wider context in addition to gathering and analyzing it. The conclusion highlights the need of communication abilities

Keywords: Communication Skills; Critical Thinking Skills; Guided Inquiry

Introduction

The primary means of keeping up with the advancements of the Industrial Revolution 4.0 is to enhance the quality of Human Resources (HR) through education from primary to tertiary levels (Lase 2019: 29). These days, education must develop students' critical thinking abilities in addition to imparting academic knowledge. Throughout the learning process, a number of issues arise, including students who do not actively participate in class discussions (Irwan, Hasbi, 2018) a lack of enthusiasm, difficulty focusing, and tiredness during the teacher's instruction of the material (Sihaloho et al., 2020). Students' critical thinking abilities are poor or non-existent as a result of these issues (Agnafia, 2019). According to Kustianingsih & Muchlis, (2021) critical thinking is a methodical and transparent way of mental activity that involves problem solving, decision making, discovering scientific operations, and analyzing assumptions.

Applying or utilizing a learning model that can engage students in active learning is required to enhance the teaching and learning process in order to solve the issues that crop up during the process. Effective learning is thought to require the application of a suitable learning model. As a method that involves active participation, guided inquiry offers learners the chance to formulate questions, gather evidence, and apply critical thinking. However, limitations in communication skills frequently impede the effectiveness of guided inquiry. According to Irwan, et al (2018), learners who have difficulty expressing ideas clearly may find it difficult to fully benefit from guided inquiry.

As per the findings of Jaya et al., (2022) the guided inquiry learning model is a conceptually-based learning approach that emphasizes making connections between various concepts within the subject matter. During the teaching and learning process, students solve problems and concepts primarily related to their existing knowledge to form new knowledge. This is one of the

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characteristics of the guided inquiry learning model. Based on their prior knowledge, students can acquire the skill of expanding their knowledge Masril et al., 2020; Novalinda et al., (2020). The steps of guided inquiry model learning activities are as follows, asking questions or problems, formulating hypotheses, collecting data, analyzing data, making conclusions (Sugiyono, 2019). The benefit of the guided inquiry model is that the teacher stays involved in the activities that the students complete, allowing both high and low thinkers to contribute equally and intellectually challenging students to follow along without feeling monopolized. (Fitriana et al (2016) highlight that the development of effective communication skills and the guided inquiry process are crucial components of this objective.

There is a connection between communication and the learning process; communication is what makes learning happen. Students who have good communication skills can express their ideas and share information with teachers and other students more easily (Putri et al., 2020). With the help of communication skills, students can effectively and accurately communicate arguments, gaining moral principles and responsibilities that they can apply to their daily lives. The indicators of communication skills used in this study are (1) clarity of delivery; (2) mastery of material; (3) interaction in groups; and (4) giving responses (Indriyani, 2020). Communication skills, including verbal, writing, and listening skills, are considered crucial. Inability in any of these aspects can hinder learners' ability to effectively communicate in the context of guided inquiry (Kamaruzzaman, 2016). Presentations are one type of oral communication that can be used to share concepts and concepts derived from observations. While reports, summaries, graphs, tables, images, posters, and so forth are examples of written communication (Lestari et al., 2016). One of the most important soft skills to meet the challenges of the twenty-first century is communication (Wilhalminah et al., 2017; Haryanti, A., & Suwarma, 2018).

Critical thinking abilities and communication abilities go hand in hand. Critical thinking, communication, teamwork, creativity, information technology use, independent learning, and media comprehension are all key components of 21st century learning (Suarsana et al., 2019). Students must formulate thoughtful queries, conduct thorough information analysis, and put together persuasive arguments. When critical thinking abilities are combined with guided inquiry, it becomes more meaningful and enables students to evaluate and connect the information they have gathered to a larger understanding.

According to empirical research by Matthew, B. M. & Kenneth, (2013), students who receive guided inquiry instruction perform better academically than those who receive traditional instruction. Introduction,

Questioning, Planning, Implementing, Concluding, and Reporting are the learning stages in guided inquiry (Jundu et al., 2020). According to research by Nurhudayah, et al., (2016), students' critical thinking abilities are significantly impacted by the guided inquiry learning model. However, there are obstacles to its implementation, such as a lack of knowledge about how guided inquiry fits into the curriculum, problems with evaluating communication skills, and difficulties encouraging critical thinking in students.

Research into the pivotal role of communication skills in the guided inquiry process with the main objective of improving critical thinking skills. The article will address the close connection between guided inquiry and communication skills in this context, emphasizing how having strong communication skills can be a major factor in maximizing the inquiry process. The focus will be on identifying pertinent components of communication skills and how they directly affect an individual's capacity to participate in inquiry in a constructive manner. The essay will also stress the benefits of effective communication in promoting the growth of critical thinking abilities. As a result, the reader will be guided to understand and value the role that communication skills play in both raising the possibility for higher critical thinking development and improving the caliber and depth of the guided inquiry process.

Method

This article follows Sugiyono, (2013) article for the use of post-positivist writing and qualitative research methods. This research aims to gain a comprehensive understanding of unique and interesting research objects. In this research, the researcher serves as the main instrument, focusing on analyzing social phenomena that are situational, dynamic, and experienced by individuals subjectively. Therefore, the purpose of the descriptive qualitative research approach is to analyze and understand the complex context of the social phenomenon under study.

The writing of the article follows several important steps that aim to ensure systematic and comprehensive research: problem identification, problem formulation, goal setting, selection of data collection methods, selection of data analysis procedures, and conclusion drawing.

The triangulation method was applied to validate the accuracy and consistency of the data collected. This method utilizes multiple data sources, including books, journal articles, notes, and other scholarly publications. Triangulation reduces bias and improves the accuracy of research results by combining data from several sources. The purpose of the inductive method used in data analysis is to produce grounded theory, which is a

theory that develops from data and not from preconceived ideas (Setyosari, 2013; Sugiyono, 2013). Researchers can create theories using grounded theory by directly interpreting the data they have collected and using empirical findings as a basis. This makes a significant contribution to our understanding of highly contextualized social phenomena.

Result and Discussion

The Importance of Communication Skills in Guided Inquiry

The guided inquiry approach is a set of educational exercises that utilizes every student's aptitude for methodical, logical, critical, and analytical search and investigation in order to prepare them to confidently formulate their own (Jundu et al., 2020; Wahyudi & Supardi, 2013). Students are trained to solve problems and make decisions on the issues they face through inquiry-based learning, which gives them the chance to engage in authentic and active learning experiences. Applying the guided inquiry learning model in the teaching and learning process is thought to be appropriate because it allows students to actively participate in the process of searching and investigating through the guidance and instructions of the teacher.

According to (Mudjiono, 2009), communicating can be defined as acquiring and transmitting scientific facts, concepts, and principles through writing, images, motions, actions, or appearances. Examples of communication include declamating, reporting, discussing, expressing, dramatizing, and reporting (in written, oral, or visual forms). 21st century skills define communication as the ability to convey and receive information both verbally (written and spoken) and nonverbally (body language, gestures, facial expressions, and eye contact) in order to accomplish objectives (Kartika & Musatadi, 2016; Husnul, 2019).

The inquiry model is effective in educational activities, according to earlier research findings. Students' critical thinking abilities can be enhanced by the inquiry model (Harahap, H. S., & Harahap, 2021). Learning achievement is impacted by inquiry-based learning. According to Sarifah & Nurita, (2023), inquiry-based learning successfully raises student learning outcomes. Effective teaching and learning can only be achieved through the use of guided inquiry, which incorporates communication skills. This is because guided inquiry aims to foster critical thinking and shared understanding rather than just imparting knowledge. Students must be able to clearly communicate their findings and exploration results to classmates in order to complete the independent exploration component of guided inquiry (Subaihatal Jamilah et al., 2023). Verbal abilities are essential, including the capacity to explain complicated concepts in detail and speak in an organized manner. To improve

comprehension and absorption, communication skills also include the capacity to convey information visually or through a variety of media.

Communication skills encompass more than just the ability to express information clearly; they also involve students' capacity to pose intelligent queries and build strong arguments in response to challenging situations (Arsad et al., 2023). Pupils should work on being able to ask clear questions so that their peers can understand the core of the issue or idea being discussed. Clear communication of ideas is not the only component of an effective exchange of ideas in guided inquiry (Anggraini, 2022). It is also expected of students to encourage their peers' ideas and thoughts. As a result, listening comprehension is crucial. Pupils must be able to actively listen to the ideas put forth by their peers, offer helpful criticism, and answer with further queries or ideas that can further the conversation.

The capacity to respect other people's points of view is another crucial component of effective communication (Adam et al., 2023). In order to foster an inclusive learning environment and encourage the growth of critical thinking, students must be open to a variety of ideas and points of view. Seeing a range of opinions can enhance conversations and provide students a new perspective on an issue or idea (Humairoh, 2022). The classroom can become a place that fosters in-depth discussion and fruitful collaboration in guided inquiry by integrating the skills of listening, offering constructive feedback, and appreciating diversity of ideas. By the process of shared learning, students' critical thinking, effective collaboration, and comprehension of material are developed in addition to their knowledge.

Effective interaction in collaborative settings, like team projects, is based on communication skills. Individual contribution, structured communication of ideas or discoveries to team members, and candid feedback-taking are all necessary for students (Jufri, et al., 2023). Guided inquiry also depends on the prompt and clear articulation of ideas. Communication skills help students convey their ideas succinctly and informatively in a setting where questions and ideas come up quickly. This helps to speed up discussion and decision-making (Nilam, 2023). In guided inquiry, effective discussion requires the deliberate use of communication techniques. Students must be able to make insightful inquiries, choose their words carefully, and engage in thought-provoking conversation (Sarifah & Nurita, 2023). As a result, effective communication skills advance comprehension of important ideas in addition to facilitating the flow of ideas.

Yani Qodarsih et al., (2023) state that communication skills aid students in developing into more multifaceted critical thinkers. Students actively participate in critical reflection, assess the advantages

and disadvantages of their arguments, and organize them logically when presenting and defending their positions. Therefore, in the framework of guided inquiry, communication skills entail not just disseminating information but also laying the groundwork for investigation, teamwork, and in-depth comprehension. With the use of these abilities, students develop crucial concepts that are necessary for the continuous growth of understanding in addition to becoming engaged participants in the learning process.

Communication abilities are essential in the guided inquiry process because they enable media facilitators to lead discussions that pique students' interest in critical thinking. In order to establish an environment that is inclusive and open, the teacher, acting as the primary facilitator, must initiate and lead discussions (Legi & Pantow, 2022). Initiating fruitful interactions requires the use of opening discussion techniques that both challenge and stimulate students' interest. Teachers must also use active listening strategies as a crucial component of two-way communication to make sure that students' ideas are understood. By using these strategies, educators can give students thoughtful answers to their ideas and arguments, enhance conversations with thought-provoking questions, and foster an environment where a variety of viewpoints can be expressed (Tampubolon, 2022). As a result, during the guided inquiry process, communication skills not only promote effective dialogue but also lay the groundwork for a thorough exchange of ideas, deepen students' comprehension, and bolster their capacity for critical thought.

Improvement of Critical Thinking Skills through Communication Skills Aspects

Students with low communication skills in science classes may find it difficult and take longer to complete learning objectives (Siswa et al., 2020). In the process of learning, effective communication between teachers and students can yield new knowledge. Less engaged students may result in a less effective learning process because they mainly pay attention to the teacher and are afraid to ask questions or provide answers (Wati, et al., 2019). Gaining an in-depth comprehension of the interrelationship between communication skills and critical thinking is necessary for the process of refining communication skills. In this situation, having effective communication skills entails more than just disseminating information; it also entails being flexible, aware of the surroundings, and able to gauge the reactions of the audience (HASANAH, 2022). Participating in group discussions helps people improve their verbal communication skills as well as their understanding of non-verbal cues, group dynamics, and facial reading abilities.

Learning activities that are appropriate and grounded in the principles of active learning are essential for developing critical thinking skills. Initially, students look for concepts and information from offline and online primary and secondary sources. Secondly, students receive practical experiences in modeling, observing, or simulating. Third, through the creation of reports or portfolios, for instance, students participate in reflexive dialogue. The six stages of critical thinking—organizing and analyzing, debating and reasoning, questioning and asking oneself, evaluating, making decisions, and acting—are condensed into these six stages. Practical learning that is in line with assessment should help to facilitate these stages. According to Priyadi, et al., (2018), there are several categories of critical thinking skills, such as interpretation, analysis, evaluation, inference, explanation, and self-regulation.

Effective communication enables one to craft messages while considering the needs of the audience and opposing points of view (Muharromah, et al., 2019). This requires the ability to create compelling arguments, weigh competing points of view, and express ideas clearly and concisely. Critical thinking abilities are inevitably needed when people evaluate the benefits and drawbacks of their own arguments and choose the best response to questions or challenges from other parties (Nugroho, et al., 2019). Communication skills also highlight analytical ability, particularly when people are reading and interpreting the messages of others (Enjang, 2023). In these circumstances, they have to sort through pertinent data, pinpoint underlying presumptions, and assess the caliber of the evidence put forth. High levels of critical thinking are required for this process, where participants actively parse and comprehend the implications of each statement rather than merely passively taking in information.

As per Harapan, E., Ahmad, S., & MM, (2022), active listening is a crucial component in fostering robust interpersonal relationships, as it not only facilitates empathy and comprehension of other people's perspectives, but also acts as a linking link. Enjang (2023) states that active listening encompasses not only responding verbally to others' speech but also interpreting body language, subtleties in voice, and facial expressions with great care. Active listeners can therefore read more than just what is said; they can also discern the subtleties of the emotions and motivations that underlie the communication, which enhances their comprehension of the larger context. It's crucial to remember that active listening techniques have effects outside of relationships. According to Shofia Rohmah et al., (2023) this ability plays a significant role in the development of critical thinking skills. Through attentive listening and a receptive attitude toward different points of view, people can acquire a variety of concepts and perspectives. They can broaden their

perspective and stay out of thinking that is overly limited or subjective by doing this. People learn to question and consider their own beliefs as a result, which makes them more receptive to the presumptions they might be carrying around.

It is crucial to realize that the combination of communication and critical thinking abilities not only builds a strong learning environment but also gives people the skills they need to navigate the intricate dynamics of the modern information age (Suharyati et al., 2023). In this sense, improving one's speaking and writing abilities involves not only learning how to express ideas clearly but also developing the core skill of creating messages that are memorable and impactful. Furthermore, given the constant influx of new information, honing one's critical analysis skills is becoming more and more important. People must be able to distinguish between pertinent and irrelevant information, as well as assess the validity of the sources of that information, in addition to being able to comprehend and interpret the information they are given. As a result, critical thinking abilities and effective communication skills enhance one another, producing people who can both carefully process and effectively communicate information.

The capacity to intelligently react to the ideas of others is also getting more and more in demand in a time when complexity is becoming the norm. People who can integrate multiple viewpoints with critical thinking abilities have an advantage in creating more comprehensive solutions to challenging problems. Discussion and idea sharing are seen as ways to enhance understanding. It is important to remember that improving communication skills is a necessary component of the process of developing one's capacity for deep critical thought rather than the conclusion of the journey. People who understand that communication skills are an essential starting point for their journey toward self-development are more likely to keep honing these skills over time. As a result, they continue to grow as critically integrated, holistic thinkers in addition to becoming valuable contributors in both professional and social contexts.

Conclusion

Communication skills are not only a boat when diving into the sea of guided inquiry; they are also a compass that directs your path. The importance of the mutually beneficial relationship between the highest level of critical thinking development and effective communication skills in the Industrial Revolution 4.0 learning era is examined in this article. Even though the guided inquiry approach has been successful in helping students discover their capacity for critical thought, communication skills appear to be crucial for

overcoming challenges and adding significance to each educational experience. Guided inquiry becomes more than just a journey—rather, it becomes an unforgettable self-discovery—when students are able to articulate concepts clearly, formulate insightful questions, and respond thoughtfully.

Participating in a guided inquiry model calls for learners to dance to the beat of a dynamic exchange of ideas in addition to requiring structured speaking abilities. The harmonious dance of constructive responses and active listening enlightens discussion, deepens understanding, and invites a range of viewpoints. Recalling that critical thinking and communication abilities are ever-evolving arts rather than merely a dish is crucial. Those who welcome this variety develop into not only adept navigators in the vast ocean of knowledge, but also imaginative artists who explore and define who they are. With this, this article celebrates the successful exploration of guided inquiry guided by the mesmerizing rhythm of communication skills, proving that every wave of discussion is a call for a higher dance of critical thinking.

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Conflicts of Interest

The authors declare no conflict of interest.

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