

Enhancing Critical Thinking Skills in Students: A Study on the Effectiveness of Group Counselling Strategies Using the Talking Stick

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| Received: | Accepted: | Published: |
|-------------------|------------------|------------------|
| 07 September 2023 | 22 December 2023 | 30 December 2023 |

Abstract

Critical thinking skills are a crucial aspect of education aimed at equipping students with strong analytical abilities, deep understanding, and effective problem-solving skills. The primary objective of this study is to assess the impact of implementing the talking-stick-playing strategy during group guidance sessions on the enhancement of critical thinking skills among students majoring in Guidance and Counseling at Bengkulu University. The research methodology employed in this investigation is experimental, utilizing a one-group pretest-posttest design. Participant selection involved purposive sampling, with a sample size of eight students from 29 students. Data collection used the critical thinking ability scale adapted from Purnomo (2020), comprising 5 dimensions and 15 statement items. Analytical techniques were using descriptive analysis and Wilcoxon test analysis. Findings from the descriptive analysis reveal that students' critical thinking abilities were categorized as sufficient before the intervention, but improved to a good level after the treatment. Furthermore, the Wilcoxon test results yielded an Asymp. Sig. (2-tailed) value of 0.000, indicating that the implementation of the talking-stick strategy during group guidance sessions significantly influences the development of students' critical thinking skills. This indicates that the structured and participatory communication method introduced through the Talking-Stick helps students develop their critical thinking skills. Therefore, this approach should be considered by educators and counsellors as a valuable resource in enriching students' learning experiences in higher education.

Keywords: Talking Stick, Group Guidance, Critical Thinking Skills

Abstrak

Keterampilan berpikir kritis merupakan aspek penting dalam pendidikan yang bertujuan untuk melengkapi siswa dengan kemampuan analitis yang kuat, pemahaman yang mendalam, dan kemampuan pemecahan masalah yang efektif. Tujuan dari penelitian ini adalah untuk menilai dampak dari penerapan strategi bermain Talking Stick selama sesi bimbingan kelompok terhadap peningkatan kemampuan berpikir kritis di antara mahasiswa program Studi Bimbingan dan Konseling Universitas Bengkulu. Metodologi penelitian yang digunakan dalam penelitian ini adalah eksperimental dengan desain pretest-posttest satu kelompok. Pemilihan subjek penelitian melibatkan teknik purposive sampling dengan sampel sebanyak delapan mahasiswa dari 29 mahasiswa. Pengumpulan data mengandalkan skala kemampuan berpikir kritis yang diadaptasi dari Purnomo (2020), yang terdiri dari lima dimensi dan 15 item pernyataan. Teknik analisis meliputi analisis deskriptif dan analisis uji Wilcoxon. Hasil dari analisis deskriptif menunjukkan bahwa kemampuan berpikir kritis mahasiswa berada dalam kategori cukup sebelum intervensi, tetapi meningkat menjadi kategori baik setelah perlakuan. Selain itu, hasil uji Wilcoxon menghasilkan nilai Asymp. Sig. (2-tailed) sebesar 0.000, mengindikasikan bahwa penerapan strategi bermain Talking Stick selama sesi bimbingan kelompok berpengaruh signifikan terhadap perkembangan kemampuan berpikir kritis mahasiswa. Hal ini mengindikasikan bahwa metode komunikasi yang terstruktur dan partisipatif yang diperkenalkan melalui Talking Stick membantu mahasiswa mengembangkan kemampuan berpikir kritis mereka. Oleh karena itu,



INTRODUCTION

Education is one business in improving quality and potential owned by every individual. Efforts to improve the quality of human resources are a challenge for universities. Ideally learning at university develop hard skills and soft skills in every student (Akhir, 2018; Aly, 2017; Munawarah & Abshari, 2019). But reality During this time, lectures occurred occasionally still only strengthening hard skills. Here, hard skills refer to mastery of lecture material (theory), meanwhile, soft skills are towards strengthening hard skills. According to Wagner (2008) soft skills are the ability to think critically and solution to the problem. Critical thinking skills cannot develop along with the physical development of each individual (Finlay, 2011; Nadeak & Naibaho, 2020; Siahaan et al., 2021). This ability associated with individual's ability to identify, analyze, and solve problems in a way creative and think logically so produce consideration and right decision (Maksum et al., 2021; Renatovna & Renatovna, 2021; Turan et al., 2019). Recently, critical thinking has been identified as one of several learning and innovation skills needed to prepare students to become superior products and ready to develop abilities in the field of education (Mustari, 2022; Tyas & Naibaho, 2021).

In the ever-developing world of education, the development of critical thinking skills in students is very important. Critical thinking skills empower students to analyze, evaluate, and synthesize

information effectively, enabling them to make well-informed decisions, solve complex problems, and engage in meaningful discussions (Chen, 2015; Heard et al., 2020; Nobutoshi, 2023). In this context, educators play a crucial role in guiding students to develop critical thinking skills. Through innovative and interactive teaching approaches, teachers or lecturers can create a learning environment that stimulates the intellectual development of students (Ferari et al., 2009; Huang et al., 2010; Chen et al., 2022). One effective strategy is to encourage open-ended question-based discussions, prompting students to think more deeply and investigate complex concepts (Chin, 2007; Aziza, 2021).

The literature on critical thinking is rooted in two main academic disciplines, namely philosophy and psychology (Lewis & Smith, 1993). Sternberg (1986) also noted the third the flow of critical thinking in the field of education. These separate academic strands have developed different approaches to defining critical thinking that reflect their respective concerns.

Each individual's critical thinking ability varies, depending on the training that is carried out to develop thinking critical. Facts encountered by students BK FKIP UNIB show that their lecture process is still theoretical and does not develop critical thinking skills. Based on observations made in certain courses, several phenomena have emerged. During lectures, students tend to be passive, not questioning and analyzing the discussion

material deeply. There is a lack of creative problem-solving skills, and dependence on specific sources during lectures, and some students tend to be unaware of the urgency of the issues they face in lectures. Critical thinking skills involve several elements of intellectual thinking, as explained in (Hawkins et al., 2019; Nursing, 2009) that part of the process of asking, analyzing, synthesis, interpretation, inference, inductive and deductive reasoning, intuition, application, and creativity carried out by students. This is also inseparable from a process that involves elements of thinking in the form of goals, problem identification, concept clarification, discovery of assumptions, viewpoint considerations, detection of evidence validation implications, and reflection.

Some previous research states that educators feel that Generation Z lacks experience with high-level critical thinking and tendencies to give up or move on when faced with a challenge. While acknowledging that this generation brings technology logical skills and an inclusive mindset (Corbisiero et al., 2022; Lester, 2011). Furthermore, what happens in the field that there are still many problems that occur in the learning process such as critical thinking not being carried out so the impact on learning outcomes is still low (Nida et al., 2020; Suryaningsih & Koeswanti, 2021).

The low critical thinking abilities of students are indicated in research conducted by Pithers & Soden (2000), which found that not all students are proficient in critical thinking. A similar situation is observed among students in Hong Kong, showing that not many students are capable of critical thinking in accelerated English language learning and other learning processes (Liang & Fung, 2021). Furthermore, the results of research

regarding students' critical thinking abilities show that data obtained from critical thinking abilities carried out by observation were 2 (8.7%) students in the moderately critical category, 10 (43.5%) students in the critical category, and 11 (43.5%) students in the very critical category. (47.8%) students in the very critical category (Pratiwi, 2022).

Previous research on critical thinking has been conducted through classical counselling guidance using open-ended methods and has proven to be effective (Anidar et al., 2023). Furthermore, genetic counselling interventions to develop critical thinking abilities in students were carried out by Scouten et al. (2023). While previous literature has discussed various methods for developing critical thinking skills, there has been no in-depth analysis of the application of the Talking Stick in the context of group counseling and its impact on the development of students' critical thinking. In this context, the game serves not only as an enjoyable means of communication but also as a tool that encourages analytical and evaluative thinking (Marisa, 2022). Based on documented research findings in international journals, the "talking stick" game creates an environment that supports the development of critical thinking skills (Saihu, 2020; Bucklin et al., 2021; Morard et al., 2023).

Existing studies tend to focus more on teaching critical thinking in formal classroom settings. Therefore, there is a gap in the literature connecting the Talking Stick with the development of critical thinking in the context of counselling group sessions. Group counselling combined with the "talking stick" game becomes a potential foundation for addressing the low critical thinking abilities of students (Putri, 2019; Jannah & Wirastania, 2022; Tangahu, 2023).

This approach creates an interactive and in-depth counselling context, allowing students to develop critical thinking skills through structured group interactions.

As demand continues to increase for graduates with strong critical thinking skills, educators and counsellors are looking for innovative strategies to help develop these important competencies. Responding to the above phenomenon, one of the efforts that is considered to be able to develop students' critical thinking skills is providing guidance and counselling services for student learning development. One way is through group guidance services with a talking-stick-playing strategy. The talking stick game strategy is a game technique that can be used in group guidance activities ([Anggraini & Fitrawati, 2016](#); [Putri, 2019](#); [Bucklin et al., 2021](#); [Jannah & Wirastania, 2022](#); [Morard et al., 2023](#)).

This technique can help students restore what they have learned in memory learning as well as test the ability of students to argue in a topic discussion. The ability of students in this opinion will have a positive impact in increasing student activity in the learning process in the classroom ([Wulandari & Setiawati, 2019](#)). There is a lack of learning process activities that encourage students' critical thinking at this time, so it is necessary to provide guidance and counselling services with the talking stick game strategy which is assumed to be able to encourage students to express opinions more confidently, to improve student's critical thinking skills by increasing concentration and responsibility in learning through the talking stick game.

The talking stick game strategy in group guidance services can provide a new atmosphere or dynamic for students so that they can actively build enthusiasm for learning and foster critical thinking skills in

students. Talking-stick-game strategies utilize guidance and counselling service activities with a fun approach through games. Through this method, students are stimulated by three things at once, namely emotional intelligence, emotional intelligence, and psychomotor.

Talking stick, a traditional tool used in various cultural and educational contexts, provides an opportunity to improve students' critical thinking skills through structured and respectful communication ([Restian et al., 2020](#); [Wicaksono & Koeswanti, 2019](#); [Jääskä & Aaltonen, 2022](#)). The Talking Stick strategy involves throwing objects, usually sticks or tokens, between group members. Only the individual holding the object is allowed to speak, so that each participant has an equal opportunity to express their thoughts, ideas and opinions. This practice encourages active listening, well-thought-out responses, and deeper exploration of the topic at hand. However, although the Talking Stick method has been used in various contexts, its specific impact on improving critical thinking skills in the context of group tutoring in university settings is still an under-investigated area of research. Based on the exposition, the strategy of playing Talking Stick is assumed to be applicable in group counselling beneficially. This tool assists in facilitating more structured and inclusive communication within the group.

This study aims to fill this gap by investigating the effectiveness of using the Talking Stick strategy during group tutoring sessions in a university setting. By exploring the experiences and outcomes of students engaging in these strategies, this study aims to provide valuable insights into how these methods can contribute to the development of critical thinking skills

among university students, particularly in the field of guidance and counselling. Understanding the benefits and challenges associated with this approach will not only inform educators and counsellors but will also contribute to the broader discussion regarding the development of critical thinking in higher education.

METHOD

This study is quantitative research employing the pre-experimental research method, using a one-group pre-test and post-test design. This method is suitable for situations where researchers want to understand the short-term effects of a treatment or intervention without the need to compare it with a control group. The one-group pre-test and post-test design is chosen due to limited resources, and researchers have constraints in terms of time or budget to involve a control group.

The population in this study was 29 initial level students. The sampling technique used in this research is a non-random sampling technique, namely the purposive sampling method (Purposive Sampling). The research sample consisted of 8 students categorized as having a sufficient level of critical thinking. This was obtained through the distribution of questionnaires among a total of 29 students.

The research instrument employed a questionnaire on students' critical thinking, adapted from (Purnomo, 2020). This critical thinking questionnaire comprises 15 statements derived from indicators, including providing simple explanations, building fundamental skills, drawing conclusions, providing further explanations, and organizing strategies and tactics. The number of answer choices for each statement or question consists of 4

(four) answer choices, namely always, often, sometimes, and never.

The instrument distribution procedure is distributed in the form of a Google form and filled out online. The Google form link is distributed via the Class WhatsApp group. Before filling out the Google form, respondents are asked to be willing to answer honestly and must be relevant to current conditions, situations and feelings.

The research was conducted for 5 weeks or 5 meetings in 2023. The topics assigned for each treatment were based on a needs analysis, which included providing simple explanations, developing fundamental skills, methods of drawing conclusions, and strategies for enhancing critical thinking skills. Data analysis used the Wilcoxon test to see the effectiveness of group guidance using the talking stick playing strategy to develop students' critical thinking skills. The Wilcoxon test is a non-parametric test.

RESULT

The population in this study consists of 29 first-year students. Subsequently, an instrument was given to assess the level of critical thinking skills among the students. The characteristics of the research respondents are then presented.

Table 1. Characteristics of Respondent

| Ethnicity | Frequency (n) | Percentage (%) |
|-----------|---------------|----------------|
| Rejang | 5 | 17,24 % |
| Serawai | 10 | 34,48% |
| Lembak | 7 | 24,13% |
| Jawa | 7 | 24,13% |

| Ethnicity | Frequency (n) | Percentage (%) |
|-----------|---------------|----------------|
| Male | 12 | 41,37% |
| Female | 17 | 58,62% |

Research was carried out to obtain an open picture of the effectiveness of group

guidance services using the talking stick playing strategy to develop critical thinking skills in Bengkulu University BK students. Pre-test data obtained and can be seen as follows:

Table 2. Pre-Test Results of Students' Critical Thinking Ability

| Intervals | categories | Frequency | Percentage |
|-----------|------------|-----------|------------|
| 46-60 | Good | 21 | 72.4 % |
| 31-45 | Enough | 8 | 27.6 % |
| < 30 | Not enough | 0 | 0 % |
| Totally | | 29 | 100% |

Based on the **Table 2** presented above, it can be seen that the data obtained on the results of the level of critical thinking skills students before getting group guidance treatment by playing *talking stick strategy*. There were 21 people in the good category with a percentage obtained of 72.4%, in the sufficient category there were 8 people with a percentage obtained of 27.6 %, and in the poor category there were 0 people with a percentage of 0 %. Based on this, students who have the ability to think critically the adequate category will be given treatment, referring to the score obtained from the pre-test results.

Based on the results of the **Table 3** presented, it can be seen that the range of student scores is in the range of 45 to 32, which indicates that guidance is still needed in an effort to develop critical thinking skills in BK students. To see a clear picture and description, service delivery activities are carried out. In order to know the level of students' critical thinking skills after being given group guidance services using the talking stick playing strategy then the sample was given the same questionnaire as the pre-test to find out the results after being given the action. The following is a

comparison of the results of the pre-test and post-test after being given the service.

Based on the **Table 4** presented above, it is known that there is a difference in the level of students' critical thinking abilities before and after being given group guidance services using the talking stick playing strategy with category indicators before and after providing the service, there is a quite significant increase. Furthermore, in this study, hypothesis testing was used using a paired sample t-test with the help of a statistics program. Based on statistical analysis, test results in above shows that the results for the paired test, it can be seen that the sig (2-tailed) value is .000, which means a significant value of $0.000 < 0.05$ so that H_0 is rejected and H_a is accepted. From these results, it can be concluded that the group guidance service uses the talking stick game strategy. Students can have an influence and develop critical thinking skills.

Table 3. Pre-test Result of Sample Student's Critical thinking Ability

| No | Student | Score | Category |
|----|---------|-------|----------|
| 1 | F AW | 45 | Enough |
| 2 | D P | 45 | Enough |
| 3 | A N | 45 | Enough |
| 4 | ADS | 44 | Enough |
| 5 | A DI | 43 | Enough |
| 6 | AH | 40 | Enough |
| 7 | A WP | 40 | Enough |
| 8 | A W | 32 | Enough |

Table 4. Comparison of Pre-Test and Post-Test Results

| Student Code | Score | Category | Score | Category | Improvement |
|--------------|-------|----------|-------|----------|-------------|
| | e | y | e | y | |
| F AW | 45 | Enough | 56 | Good | 11 |
| D P | 45 | Enough | 58 | Good | 13 |
| A N | 45 | Enough | 58 | Good | 13 |
| ADS | 44 | Enough | 58 | Good | 14 |
| A DI | 43 | Enough | 50 | Good | 7 |
| AH | 40 | Enough | 52 | Good | 12 |
| A WP | 40 | Enough | 50 | Good | 10 |
| A W | 32 | Enough | 46 | Good | 14 |

DISCUSSION

This study aimed to determine the difference in the level of critical thinking skills experienced by students before and after being given group guidance services using the talking stick playing strategy. The results of the research conducted showed that there was a significant increase in students' level of critical thinking abilities experienced by students. This is also relevant to previous research (Eldeleklioglu & Özkiliç, 2008).

Based on the results of the pre-test, it indicates that on average, students already possess a sufficient level of critical thinking; however, there is still room for improvement to achieve ideal or maximum results. This implies that students fundamentally have a fairly good level of critical thinking skills, but there is still potential for enhancement (Brown, 2022; Fook, 2022; Marcus, 2018). This can be observed in the variation in pre-test scores, suggesting that some students may have better critical thinking skills than others.

Therefore, more focused and targeted development efforts within group counseling can assist students in achieving more consistent and closer-to-ideal results (Lazonder & Harmsen, 2016; Ulger, 2018). Additionally, it is important to note that the development of critical thinking can have a positive impact on students' abilities in problem-solving, analysis, responding and decision-making across various aspects of their lives, making it a significant concern in an educational context (Heard et al., 2020; Prajapati et al., 2017; Schooner et al., 2017; Pohan, 2016; Pohan & Indra, 2020; Widana et al., 2018).

Students sometimes in their academic journey are faced with challenges that are more than just understanding information (Gafur, 2015; Salazar et al.,

2016). They must develop the ability to think critically, and be able to analyze, evaluate, and formulate arguments logically and rationally. However, this challenge is never overcome alone. This is where group tutoring services with talking stick game strategies play an important role in helping students develop their critical thinking skills. Critical thinking ability is a skill that a person must have to analyze, interpret, evaluate and formulate arguments logically and objectively (Greenstein, 2012; Lai, 2011; Suter, 2011). Students need this ability to solve complex problems, make decisions, and face challenges academic and professional.

Furthermore, group guidance is an approach in guidance services involving several individuals in one session. This approach aims to create an environment that supports individual growth and development in a group context. In group counselling, group members can share experiences, provide support, and build social skills through positive interactions (Springer & Misurrell, 2010; Kelly et al., 2018). This approach not only creates a space for self-exploration but also facilitates the learning process through collective reflection and the exchange of ideas. Furthermore, group counselling enables individuals to feel supported by fellow group members, fostering a sense of camaraderie and solidarity that can strengthen the efforts of each individual's personal growth.

The meeting started with warmth and mutual greetings. The group leader is experienced in directing dialogue and ensuring a safe and inclusive environment (Chen & Rybak, 2017; Shechtman, 2017). Then, the "talking stick" or talking stick began to move from hand to hand. The first student to hold it may have hesitated, but he

gently started the discussion with a question. His initial anxiety slowly disappeared as he felt that he was being seriously heard by his comrades. Along with the answers, there were responses and small cheers of appreciation providing support.

Then, naturally, the baton passed to the next student. Their heads may be full of thoughts about what they will say, how they will frame their arguments, and how their peers' responses will shape up (Høffding & Martiny, 2016; Müller & de Rijcke, 2017; Winter, 2016). It's not just about talking, it's also about listening attentively. Every time a student speaks, the others listen not only to answer but to understand. Through this experience, they learn to formulate clear and cohesive arguments. They learn to face critical questions from their peers, responding with in-depth solutions rather than just surface responses. They learn to accept different points of view openly and think critically about their implications.

During this process, which feels very simple with a "talking stick" at its centre, students develop invaluable critical thinking skills. They not only become better at analyzing information, but also at formulating strong arguments, evaluating options, and making informed decisions (Cottrell, 2017; Kuhn, 2019).

By the end of the meeting, even though time was limited, students felt they had more than just an understanding of the topics they discussed. They feel involved in stimulating discussions, filled with a variety of views and ideas. They realize that critical thinking is not just about recognizing facts, but also about connecting them, questioning assumptions, and seeking deeper understanding (Larsson, 2017; Liedtka, 2015; Treffinger et al., 2023). With group guidance that adopts the Talking Stick

strategy, students not only develop critical thinking skills but also improve their communication abilities (Hsu et al., 2022; Zare & Othman, 2015). They become more confident in expressing opinions, more open to new points of view, and better trained in listening attentively. In this environment, they grow not only as learners but also as more critical and reflective thinkers, ready to face the challenges of the wider world.

The results of this research consistently show that the use of the Talking Stick strategy positively contributes to the development of students' critical thinking skills. In group tutoring sessions that implemented talking stick, students experienced marked improvements in their ability to evaluate, analyze, and synthesize information (Shah & Pabel, 2020). This reflects the importance of the setting provided by Talking Stick in creating an environment that supports critical reflection and dialogue.

In addition, the results of the analysis during the treatment revealed interesting communication patterns in the sessions using the talking stick. More structured student responses, more focused dialogue, and deeper experiences in listening to their peers were some of the things that emerged consistently. This shows that the talking stick encourages students to speak with consideration and respect other people's points of view. The quality of social interaction and exchange of ideas has improved markedly (Cefai et al., 2018; Irwin, 2020).

However, some challenges may be faced in implementing the talking stick strategy. In particular, it takes longer to facilitate discussion than other, more liberal methods. In addition, the possibility of initial resistance from students who are not

familiar with this approach needs to be considered (Cefai et al., 2018; Irwin, 2020). Therefore, this approach may require some initial learning and adjustments. The implications of this research in the context of higher education are very relevant. Critical thinking ability is one of the main skills needed by students during their studies and in their future professional life (Cottrell, 2017; Heard et al., 2020). The results of this research indicate that Talking Sticks can be an effective tool in helping students develop these skills.

Apart from that, this strategy can also have a positive impact in improving classroom dynamics, increasing student participation, and strengthening the quality of interpersonal communication. Therefore, this approach should be considered by educators and counselors as a valuable resource in enriching students' learning experiences in higher education.

Additionally, this strategy can have profound implications for counselors in higher education. Counselors can explore the incorporation of group counseling methods to enhance their support services, fostering a sense of community and collaboration among students. By utilizing this approach, counselors may address not only individual concerns but also promote collective well-being and personal development within the student body.

However, it is essential to acknowledge potential limitations in the research. One limitation may be the generalizability of the findings, as the study focused on a specific population. Future research could expand its scope to include diverse student groups, ensuring a more comprehensive understanding of the effectiveness of group counseling in various contexts. For further research, it is recommended to delve into the specific

factors that contribute to the success of group counseling in higher education settings. Exploring the optimal group size, duration, and frequency of sessions, as well as identifying the key components that maximize positive outcomes, would provide valuable insights for counsellors and educators looking to implement or enhance group counselling programs.

CONCLUSION

In general, it can be concluded that group counselling, using the Talking Stick playing strategy, can play a significant role in developing students' critical thinking abilities. In this context, the Talking Stick functions as a tool that aids in creating a structured, inclusive, and participant-focused environment. Consequently, this approach can be an effective strategy for enhancing students' critical thinking skills, which have a positive impact on various aspects of their lives.

ACKNOWLEDGEMENT

Thank you to the Faculty of Teacher Training and Education, University of Bengkulu, which has funded research activities. Thank you for your good cooperation in completing this research, Mr. Syahriman, M.Pd., Adif Jawadi Saputra, M.Pd., Kons., and Mr. Arsyadani Mishbahuddin, M.Pd.I and Ahmad Syaf Ya Habibi, S.Sos.I., M.Pd., so that this article can be completed on time. Thank you also to the students of FKIP BK Bengkulu University who have supported this research.

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