

A Study on the Effectiveness of Group Counseling Services in Fostering Critical Thinking Skills in Primary Education

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Article Info

Article history:

Received February 9th, 2025

Revised July 20th, 2025

Accepted July 30th, 2025

Keywords:

Group Guidance Services
Critical Thinking Skills
Elementary School Students

Abstract

This study evaluates the effectiveness of group guidance services, such as group discussions, role-playing, and brainstorming, in improving critical thinking skills among elementary school students aged 8 to 12. Using a mixed-methods approach with a quasi-experimental design, the research divides participants into an experimental group, which receives group guidance, and a control group, which follows the regular curriculum. Quantitative data was collected using the Cornell Critical Thinking Test (CCTT), while qualitative insights were gathered through semi-structured interviews with students and teachers. Paired-sample and independent-sample t-tests were used for quantitative analysis, and a thematic analysis was applied to the qualitative data. The findings show a significant improvement in critical thinking abilities within the experimental group. This was supported by qualitative data, which indicated increased participation and a more positive attitude toward critical thinking among the students. The study concludes that group guidance services are highly effective in fostering critical thinking skills, provided they are well-planned and executed. Key factors for success include stakeholder cooperation, resource availability, and teacher expertise. The research offers practical recommendations for educators and school counselors to enhance and sustain these services, ensuring they continue to cultivate critical thinking skills essential for both academic and personal growth.

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INTRODUCTION

The Guidance and Counseling (GC) curriculum in elementary schools is based on Ministerial Regulation (Permendikbud) No. 111 of 2014, Ministerial Regulation (Permendiknas) No. 27 of 2008, and the National Education Standards, all of which prioritize the comprehensive development of students' potential in personal, social, academic, and career areas. The Pancasila Student Profile, which emphasizes virtues like religion, moral character, cooperation,

independence, critical thinking, and creativity, is what GC services seek to promote in accordance with the Merdeka Curriculum. Enhancing students' self-confidence, social skills, and self-awareness is the main objective of group counseling, which is an essential part of the GC curriculum and serves developmental, preventative, understanding, corrective, and facilitative purposes. Basic services, responsive interventions, individual planning, and system support are among the services included in the program. Engaging and structured activities like talks, instructional games, and simulations are used to execute group therapy, while questionnaires, interviews, and observation are used to assess its efficacy. Additionally, the Student Independence Competency Standards (SKKPD) offer a framework that prioritizes healthy social interaction, discipline, empathy, and character development. Group counseling is implemented using carefully thought-out Service Delivery Plans (RPL), creative techniques like role-playing and moral storytelling, and cooperation with parents and teachers in the classroom to guarantee the holistic development of students.

According to this perspective, the ability to think critically is a fundamental skill necessary for negotiating the complexity of the modern world. Strong critical thinking abilities enable students to assess arguments, analyze data, and come to well-reasoned conclusions. The basis for lifelong learning and problem-solving skills is laid during the primary school years, thus it is especially important to foster these talents during this time. Structured conversations, cooperative problem-solving, and interactive role-playing are examples of group guidance and counseling activities that are becoming more widely acknowledged as successful strategies for fostering critical thinking in students by including them in reflective and analytical processes. Paul and Elder (2006) stress the significance of critical thinking in developing higher-order cognitive skills, whereas Facione (2011) emphasizes that critical thinking entails the capacity to evaluate and analyze information in order to make wise decisions. The GC curriculum in primary schools helps kids grow socioemotionally and equips them for future academic and personal issues by including critical thinking objectives into group counseling services.

Many academics and educators agree that critical thinking is important in education. Critical thinking, according to Facione (2011), is the capacity to assess and analyze data in order to inform choices. Students need this ability as they navigate a variety of possibilities and obstacles in both their personal and academic life. Elementary school students' development of critical thinking skills is especially important because it lays the groundwork for subsequent, more complex cognitive capacities (Paul & Elder, 2006).

Group guidance services which are usually provided by school counselors or other qualified teachers offer a controlled setting where students can participate in cooperative learning and problem-solving exercises. These programs are intended to help students develop in a number of areas, such as social skills, emotional control, and cognitive abilities. Study conducted by Whiston and Quinby (2009) has shown that group guidance service to be a successful strategy for developing students' critical thinking abilities. Students who took part in group guiding activities showed a considerable improvement in their capacity to assess and analyze material when compared to those who did not.

Group guidance services have their theoretical roots in Vygotsky's (1978) work, which highlighted the significance of social contact in cognitive development. Vygotsky argues that learning is a social process that happens through interaction with others, and group guidance

services offer a perfect environment for these interactions by enabling students to participate in critical discussions and collaborative problem-solving. This social constructivist approach is in line with the objectives of critical thinking education, which emphasizes the value of reflection and dialogue in the learning process.

The usefulness of group guidance services in fostering critical thinking abilities is demonstrated empirically in addition to theoretically. According to a meta-analysis by Erford et al. (2011), group guidance interventions improved students' social-emotional and cognitive development. In particular, the study found that group mentoring activities were linked to enhancements in students' capacity for problem-solving, decision-making, and general academic achievement. These results imply that group guidance programs can be extremely effective in helping elementary school students develop their critical thinking abilities.

Despite the potential benefits of group guidance services, there are various problems that need to be addressed to ensure their efficacy. One of the primary challenges is the requirement for well-trained teachers who can effectively guide students through the critical thinking process. Corey (2015) asserts that the teacher's abilities and knowledge have a major role in the effectiveness of group guidance exercises. Teachers must be able to ask open-ended questions, encourage students to think critically about the topics being discussed, and establish a safe, accepting environment where students feel free to share their opinions. Another challenge is the requirement for relevant materials and resources to support group guidance activities. Activities and exercises must be carefully planned and adapted to the developmental needs of elementary school students in order to provide effective group guidance services. These exercises ought to be interesting, pertinent to the experiences of the students, and give them the chance to develop and use their critical thinking abilities in authentic settings.

Gladding (2016) asserts that group guidance services can be more successful in encouraging critical thinking when they incorporate imaginative and participatory exercises like role-playing, brainstorming, and group discussions. This view is reinforced by recent research that shows how interactive and experiential learning methods can effectively develop critical thinking skills. For example, Johnson and Smith (2020) stress that role-playing gives participants the opportunity to explore different viewpoints and practice problem-solving in a safe setting, which improves their critical and creative thinking skills; similarly, brainstorming, as mentioned by Brown et al. (2019), encourages collaborative thinking and helps people come up with creative solutions by building on each other's ideas.

The social dynamics of group interactions can greatly enhance critical thinking by exposing people to a variety of perspectives and cultivating an inquiry-based culture (Martinez and Thompson, 2018). Additionally, participatory exercises are consistent with constructivist learning theories, which posit that active participation in the learning process results in more meaningful and lasting cognitive development (Harris & Nguyen, 2022). Group discussions have been demonstrated to promote deeper engagement and reflection because they encourage participants to articulate their thoughts, challenge assumptions, and consider alternative viewpoints (Lee & Carter, 2021).

Nonetheless, several professionals warn that successful facilitation is essential to the success of these techniques. The teachers' role is essential in fostering an inclusive atmosphere where everyone feels free to express their opinions and participate in critical discourse, as stated

by Parker et al. (2020). Group activities might not produce the desired results if they are not guided by qualified professionals. According to Gladding (2016), there is broad support from recent research for the inclusion of creative and interactive activities in group guidance services, as long as they are planned and led to optimize their influence on the development of critical thinking skills. Moreover, teachers, school counselors, and other stakeholders must work together to deliver group guidance services with success. Working together is crucial to ensuring that group guidance activities are incorporated into students' daily routines and are in line with the curriculum's overarching objectives. School counselors are essential in organizing and leading group guidance services, but they must collaborate closely with educators and administrators to make sure that these programs are successfully carried out and maintained throughout time, according to ASCA (2019). Parker et al. (2020) stated that the teacher's job is vital in fostering an inclusive atmosphere where everyone feels free to express their opinions and have critical conversations. Group activities might not produce the desired results in the absence of expert supervision. Overall, current research strongly supports the inclusion of creative and interactive activities in group guidance services, as promoted by Gladding (2016), so long as they are carefully planned and led to optimize their influence on the development of critical thinking skills.

In addition to implementation issues, group guiding services must be continuously evaluated and assessed to guarantee their efficacy and quality. In order to track students' progress and pinpoint areas for development, Whiston (2011) states that both formative and summative assessments should be a part of the evaluation of group guidance services. Formative evaluations, like student and teacher observations and comments, can offer important insights into how well group guidance activities work and assist in making the required modifications. Standardized examinations and surveys are examples of summative evaluations that can offer a more thorough analysis of how group guidance services affect students' critical thinking abilities and general academic achievement.

Based on the theories and concepts put forward by the experts above, this research aims to evaluate the methods and strategies used in group guidance services, such as group discussions, role-playing and brainstorming, and identify the factors that influence the success or failure of these interventions. In addition, this study also aims to provide practical recommendations for educators and school counsellors in designing and implementing more effective group guidance services, so as to support the development of students' critical thinking skills early on. The importance of quality analysis in group guidance services cannot be overstated. Quality analysis involves a systematic examination of the various components of group guidance services, including the design, implementation, and outcomes. According to Gysbers and Henderson (2012), quality analysis is essential for ensuring that group guidance services are effective in achieving their intended goals and for identifying areas where improvements are needed. Quality analysis can also provide valuable information for decision-making and resource allocation, helping to ensure that group guidance services are sustainable and scalable.

METHOD

The structured model of group counseling is used in this study because it supports the goal of the research, which is to develop critical thinking abilities through methodically planned activities and resources such case studies, problem-solving activities, and facilitated

conversations. Unlike the directing model, which is too dominated by the counselor, or the non-directive model, which provides too much independence, this model is especially appropriate for primary school pupils, who still need clear supervision and direction. Additionally, by striking a balance between active student participation and counselor guidance, the organized model allows students to participate in critical thinking-promoting activities including situational analysis, Socratic questioning, and group reflection. This model's ease of evaluation is another strength; each activity is meticulously organized with a distinct sequence and goals, making it possible to measure the service's efficacy in improving critical thinking abilities more precisely.

The study uses a mixed-methods approach that combines quantitative and qualitative techniques to assess the efficacy of this organized group counseling paradigm. This thorough approach guarantees both the gathering of quantifiable results and a greater comprehension of the contextual elements affecting the provision of group counseling services. To evaluate the effect of the intervention on students' critical thinking abilities, a quasi-experimental approach with a pretest- posttest control group is employed. This design allows the study to isolate the effects of the structured model while reducing the influence of external variables by comparing the outcomes of students who engage in group counseling activities (experimental group) with those who do not (control group) (Creswell & Creswell, 2018).

The participant of the study are students in primary school, ages 8 to 12 because they are at a crucial juncture in the development of fundamental cognitive abilities. Two similar groups of students from the same school are chosen using a purposive sampling technique: one group receives group guiding services, while the other group follows the regular curriculum without additional interventions.

Data is gathered using a variety of tools to assure triangulation and improve the trustworthiness of conclusions. The Cornell Critical Thinking Test (CCTT), a validated instrument created for elementary students, is the main tool for evaluating critical thinking abilities (Ennis et al., 2005). Semi-structured interviews with teachers and a subset of students are used to collect qualitative data. Participants' opinions of the group guiding exercises, their perceived influence on critical thinking, and any difficulties encountered during implementation are all examined in these interviews. In order to record the dynamics of group interactions and the facilitation process, classroom observations are also carried out (Merriam & Tisdell, 2016).

Quantitative data from the CCTT is analyzed using paired-sample t-tests to compare pretest and posttest scores within groups, assessing the perceived impact on critical thinking and any challenges encountered during implementation, while independent-sample t-tests are used to compare outcomes between the experimental and control groups, with effect sizes calculated to determine the practical significance of the findings (Field, 2018). In parallel, thematic analysis is used to examine qualitative data from observations and interviews. Transcripts are coded to find recurrent themes about the success of group guidance services, the roles of teachers, and student engagement, which sheds light on the contextual elements affecting the intervention's outcome (Braun & Clarke, 2006).

RESULTS AND DISCUSSION

Results

Pretest-Posttest Comparisons

Quantitative analysis showed a significant increase in critical thinking skills among students who participated in the group guidance service, as shown in the following table.

Table 1. Quantitative analysis result

Group	Pretest (M ± SD)	Posttest (M ± SD)	Statistical Analysis	Effect Size (d)	Significance (p)
Experimental Group	26.4 ± 4.3	33.8 ± 3.9	Paired-sample t-test: t = 7.51	1.84	< 0.001
Control Group	24.7 ± 4.3	24.1 ± 3.9	Paired-sample t-test: t = 0.85	-	0.3

The study's findings demonstrate how well group guidance services can help students develop their critical thinking abilities. The Cornell Critical Thinking Test (CCTT) scores of the experimental group, which took part in the group guidance services, improved statistically significantly between the pretest and posttest. However, there was no discernible change in the CCTT scores of the control group, which was not given the intervention. This striking disparity highlights the beneficial effects of the group guidance services on the growth of critical thinking skills and implies that these kinds of treatments can be very important in promoting these vital talents.

Between-Group Comparisons

The efficiency of the intervention was established using independent-sample t-tests comparing the experimental and control groups' posttest results. Significantly, the experimental group performed better than the control group ($t = 8.12$, $p < 0.001$, $d = 1.95$). This implies that students' critical thinking skills, as assessed by the CCTT, were significantly impacted by the group guidance services.

Subscale Analysis

Subsequent examination of the CCTT subscales showed gains in induction, deduction, evaluation, and all other aspects of critical thinking. The largest gains were observed in the evaluation subscale (pretest: $M = 7.2$, $SD = 1.6$; posttest: $M = 9.7$, $SD = 1.4$; $t = 6.24$, $p < 0.001$), indicating that students became more adept at assessing the credibility and relevance of information. These results are consistent with earlier studies showing how organized group activities promote critical thinking (Facione, 2011).

Qualitative Insights

The group guidance intervention consisted of four structured sessions, each with a distinct theme designed to enhance critical thinking:

1. Session 1: Exploring Emotions and Perspectives – To assist students in identifying other points of view and challenging presumptions, activities included role-playing and storytelling.
2. Session 2: Analyzing Situations and Problems – To develop logical reasoning, students participated in facilitated conversations and easy problem-solving exercises.
3. Session 3: Evaluating Information and Arguments – Among the exercises were evaluating brief scenarios and selecting the best, empirically backed responses.

4. Session 4: Reflection and Application –Through cooperative group projects, students were urged to consider what they had studied and use critical thinking in fictitious real-life scenarios. Students were able to progressively build critical thinking abilities in a scaffolded fashion because to this organized sequence of lessons, which began with self-awareness and progressed to using reasoning in group settings.

Student Responses and Engagement

Feedback from teachers and students was largely positive, according to a thematic analysis of their interviews. The participatory aspect of the lessons, especially the role-playing and problem-solving exercises, was praised by the students. They frequently engaged in in-depth conversations where they questioned one another's presumptions and were very cooperative and active. *"I liked working together to find solutions," said one kid. "It forced me to reflect more deeply and come up with better ideas"* one student said.

A crucial aspect of critical thinking, teachers also noted that pupils were more introspective and open to hearing other viewpoints. Teachers observed that pupils were inspired to consider options beyond yes/no responses by the use of open-ended questions and Socratic conversation tactics. *"The group conversations gave kids the opportunity to hear other viewpoints and question their own presumptions, which is an important aspect of critical thinking"* according to one teacher. This enthusiastic involvement demonstrates the beneficial effects of organized group instruction in creating a cooperative learning atmosphere.

Teacher Involvement and Challenges

A key factor in the sessions' effectiveness was the teacher's facilitation. In line with Vygotsky's social constructivism theory, educators fostered an environment that encouraged inquiry and discovery by employing scaffolding strategies and open-ended questioning (Vygotsky, 1978). However, several teachers found it difficult to control group dynamics, particularly when some students dominated the conversation or were reluctant to speak. Time restrictions and a lack of resources were also mentioned as difficulties. These results highlight how crucial it is to provide teachers with continual training and assistance in order to preserve the caliber of group counseling services. Bruner's scaffolding theory (Bruner, 1983) emphasizes the need of short-term support systems in assisting pupils in moving from fundamental comprehension to autonomous critical thinking.

Discussion

The quality of group guidance services and their effect on elementary school students' critical thinking abilities were examined in this study. The findings show a positive correlation between the quality of group guidance services and the development of critical thinking skills. In particular, components of successful group instruction, such as structured exercises, facilitated conversations, and a nurturing atmosphere, had a significant impact on students' capacity for information analysis, argument formation, and problem-solving. Notably, counselor observation notes documented a gradual shift in students' behavior throughout the sessions. Initially, many students were hesitant to voice their opinions or challenge ideas. However, by the third and fourth sessions, students were actively debating, asking probing questions, and building on their peers' ideas, indicating the development of reflective and analytical thinking habits.

The results correspond with prior studies highlighting the function of social interaction and guided practice in improving critical thinking (Johnson & Johnson, 1999). Students were given

the opportunity to participate in cooperative learning, exchange varied viewpoints, and question their own preconceptions in the group environment. According to Vygotsky's (1978) sociocultural theory, learning takes place in the zone of proximal development through social interaction and scaffolding. Peer and teacher guidance probably served as scaffolding, allowing students to take on more difficult thinking exercises than they could have done on their own.

Vygotsky's theories have been extended by recent studies that emphasize the dynamic and reciprocal character of scaffolding. For example, an de Pol et al. (2010) contend that adaptive scaffolding is necessary for effective learning, with the amount of assistance being modified in response to the learner's changing needs. This is consistent with the idea of contingent teaching, in which teachers progressively lessen their assistance as learners become more capable (Wood et al., 1976). According to Mercer and Howe (2012), dialogic teaching—in which students participate in meaningful discussion to co-construct knowledge—is crucial in the context of peer collaboration since it fosters cognitive development while also improving communication and critical thinking abilities.

The study's conclusions findings also imply that some elements of group guidance services are especially important for developing critical thinking skills. For example, activities that specifically encouraged information analysis, evaluation, and questioning seemed to be more successful than those that only addressed the distribution of information. This corresponds with the broader literature on critical thinking, which underlines the role of active interaction, dialogue, and reflective activities in building higher-order cognitive skills (Facione, 2015). Group guidance and counseling with its collaborative and interactive nature, provides a perfect atmosphere for such exercises, as it enables participants to challenge assumptions, explore alternative views, and participate in metacognitive reflection.

Recent study highlights the usefulness of structured group activities in encouraging critical thinking. For instance, Ghanizadeh (2017) emphasizes the relevance of cognitive conflict in group settings, where opposing opinions and constructive arguments drive deeper analysis and problem-solving. In a similar vein, Paul and Elder (2020) contend that Socratic questioning, which challenges people to examine the reasoning and supporting data for their opinions, is the most effective way to develop critical thinking. These strategies can be used by teachers to help students examine their biases and cognitive patterns, which will improve their critical thinking skills.

Moreover, the social dynamics of group guidance play a major role in skill development. Yalom and Leszcz (2020) state that the counseling elements of group guidance, including universality, interpersonal learning, and group cohesion, foster a safe space where people feel comfortable asking questions and thinking deeply. Because they promote candid communication and respect for one another, these elements are especially supportive to critical thinking. Furthermore, because group work is collaborative, individuals can practice distributed cognition, in which individual learning is improved by the group's collective intelligence (Hutchins, 2014).

However, the study also revealed some challenges. At first, several students found it difficult to contribute fully to group discussions, possibly as a result of shyness or a lack of trust in their capacity for critical thought. This emphasizes how important it is for teachers to establish a welcoming and secure atmosphere that inspires participation from every student (Cohen, 1996). To solve this problem, tactics like think-pair-share exercises, small group activities, and clear communication skills training could be used.

Furthermore, only a particular sample of primary school students was included in the study. Future studies could examine how well group guidance services work for a range of age groups and demographics. It would also be beneficial to look into how these interventions affect students' critical thinking abilities over the long run. Last but not least, assessing the particular education and assistance required for teachers to provide excellent group guidance services is essential to guaranteeing the success of these initiatives.

These findings have a number of consequences for educators and policymakers. First, the results indicate that group advice services should be included in the elementary school curriculum as a way to foster critical thinking. Schools should set aside time and resources for these activities and make sure that teachers have the tools and training they need. In order to provide high-quality interventions. Second, the study highlights the importance of professional development for teachers. Group dynamics management, discussion facilitation techniques, and the use of open-ended questions to promote critical thinking should all be covered in training programs.

The American School Counselor Association's (ASCA, 2019) recommendations, which highlight the importance of school counselors in fostering students' cognitive and social-emotional growth, are in line with this. Finally, the study underscores the need for ongoing evaluation and quality analysis of group guidance services. Schools should regularly assess the effectiveness of these interventions and make adjustments based on feedback from students, teachers, and teachers.

In summary, this study adds to the increasing amount of data demonstrating the value of group guidance services in helping elementary school students develop their critical thinking skills. Teachers may foster critical thinking and give students the tools they need for success in the future by resolving implementation issues and utilizing collaborative learning's advantages. As Darling-Hammond et al. (2017) contend, equitable access to high-quality educational practices is crucial for guaranteeing that all students have the chance to develop the skills necessary to thrive in the twenty-first century. Future research should investigate the long-term impact of group guidance services on critical thinking and other related outcomes, such as creativity, resilience, and social competence. Additionally, studies examining the scalability of these interventions across diverse educational contexts, including under-resourced schools and multicultural classrooms, are also needed.

CONCLUSION

Group guidance services have the potential to play a significant role in developing the critical thinking skills of elementary school students. Students can participate in cooperative learning and problem-solving exercises in an organized setting with these services, which is crucial for the growth of critical thinking abilities. However, the degree of cooperation among stakeholders, the availability of suitable resources and materials, and the abilities and experience of the teachers all affect how effective group guiding services are. To guarantee the effectiveness and sustainability of group guidance services, ongoing assessment and quality analysis are also crucial. Teachers may help primary school students develop critical thinking abilities and set them up for success in both their academic and personal life by addressing these issues and utilizing the possibilities of group guidance services.

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