

# Enhancing Students' Self-Confidence via Guided Inquiry and Information Services Intervention

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#### Abstract

This study employed a randomized experiment with a control group design and utilized a validated and reliable questionnaire for data collection. It investigates the efficacy of information services employing an inquiry model compared to those without special treatment in enhancing students' self-confidence. The sample comprised 58 students from a State Junior High School in Padang. Data analysis involved t-tests and statistical tests utilizing n-gain scores, with the research instrument employing a Likert scale model. The findings indicate that information services utilizing the guided inquiry model are more effective in enhancing students' self-confidence. Further discussion was explained in the article.

Keywords: Student confidence, information services, guided inquiry

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#### Introduction

Self-confidence is a crucial aspect that a student must possess both in learning and in daily life (Hakim, 2005). Confidence will foster a belief in one's abilities, enabling individuals to overcome various obstacles and challenges in achieving life goals (Greenacre et al., 2014). Lie (2004) explains that confidence means being sure of one's ability to complete a task and solve problems. Self-confidence is a strength within an individual to tackle problems optimistically (Apollo, 2005). Someone with self-confidence in learning can successfully handle problems, tasks, or assignments that align with their developmental stage, at least demonstrating the ability to learn and complete tasks effectively (Woodman et al., 2010).



Self-confidence is the perception of your skills and capabilities, indicating a level of selfacceptance, trust, and control over your life (Akbari & Sahibzada, 2020). Understanding one own strengths and weaknesses, maintaining a positive self-image, setting achievable goals, assertive communication, and handling criticism are all attributes of self-confidence (Hanton et al., 2004). Conversely, lacking self-confidence can lead to self-doubt, passivity, mistrust, and sensitivity to criticism, resulting in feelings of inferiority or being unloved (Furnham & Cheng, 2023). Confidence levels may vary depending on the situation, with confidence in certain areas, such as academics, contrasting with uncertainty in others, like relationships.

High or low self-confidence is often based on perceptions rather than actual abilities, influenced by personal experiences and thought patterns (Feltz, 1988). Low self-confidence can arise from factors like a critical upbringing, separation from support networks, self-judgment, or fear of failure, leading to distorted thinking patterns (Hollenbeck & Hall, 2004). Confidence entails believing in one's capabilities to overcome challenges and succeed, necessitating a realistic understanding of one's abilities, motivation, and available resources against the task's demands, a process we constantly engage in across various aspects of life, from mundane tasks to significant endeavors (Woodman et al., 2010).

One way to increase students' self-confidence is by using inquiry-based learning. According to Gulo (Anam, 2017) inquiry is a series of learning activities that maximally involve students' abilities to systematically, critically, logically, and analytically seek and investigate, with the aim of enabling students to confidently formulate their own discoveries. Guided inquiry is a series of learning activities that emphasize critical and analytical thinking processes to independently seek and find definite answers to a problem. The thinking process is usually carried out through question-and-answer sessions between teachers and students.

Inquiry-based services can be summarized as a service that provides ample space for students to discover their own learning preferences. Inquiry is a series of service activities that emphasize



critical and analytical thinking processes to independently seek and find answers to a questioned problem. Curiosity about the natural surroundings is innate from birth, through senses like sight, hearing, and others. This curiosity drives humans to continue developing into adulthood using their brains and thinking. Knowledge becomes meaningful when fueled by curiosity. It can be concluded that the main purpose of inquiry is to help students develop intellectual discipline and thinking skills by posing questions and obtaining answers based on their curiosity.

According to Sanjaya (2011) guided inquiry is a series of learning activities that emphasize the process of thinking critically and analytically to search for and find for oneself a definite answer to a problem being asked. The thinking process itself is usually carried out through question and answer between the teacher and students. This is also in line with Sukma and Muliati study (2016) that found students can develop their mastery of concepts and critical thinking skills through the guided inquiry model. Wahyudin et al., research (2010) found that the implementation of guided inquiry and information service methods with multimedia assistance can increase students' interest and understanding. Prayitno (2018) explains that information services intervention fulfill individuals' deficiencies in the information they need. In this service, various information is conveyed to students which is then processed and used by individuals for the benefit of life and development. This service is organized by guidance and counseling teachers for students or learners.

Previous research has not extensively examined guided inquiry and information services as an intervention to enhance students' self-confidence (Prayitno, 2018; Sukma & Muliati, 2016; Wahyudin et al., 2010). How effective are guided inquiry and information services interventions in enhancing students' self-confidence remains unanswered. This is the gap of knowledge that still exists. To answer this gap, current study will examine guided inquiry and information services to enhance the self-confidence of junior high school students.



#### Method

#### Design

This research used a randomized experiment with control group design. Data was collected using a validated and reliable questionnaire. This research examines the effectiveness of information services using an inquiry model with information services without special treatment to increase students' self-confidence.

#### Participant

In this research, a simple random sampling method was employed to select a total of 58 Junior High School students. The participants were divided into an experimental group of 29 students and a control group of 29 students who have medium to low self-confidence.

#### Measurement

The self-confidence scale was developed from Lauster's (2005) theory, consisting of 34 items that measure students' level of self-confidence in learning. The scale of student confidence in learning uses alternative responses: very suitable (SS), suitable (S), not suitable (KS), not suitable (TS), very inappropriate (STS). The positive statement score is given as follows: SS (very suitable) = 5, S (suitable) = 4, KS (less suitable) = 3, TS (not suitable) = 2, STS (very inappropriate) = 1. On the other hand, for negative statements: SS (very suitable) = 1, S (suitable) = 2, KS (Not suitable) = 3, TS (not suitable) = 4, STS (very unsuitable) = 5. Examples of items for student self-confidence in learning "I don't have the confidence to complete difficult tasks while studying", "I prepare myself well when I want to study", and "I learn deficiencies that need to be corrected in studying". Cronbach's Alpha value reliability coefficient $\alpha = 0.899$ .

#### Intervention module

The experimental group underwent training in five sessions, each lasting two hours per meeting, with a total of four sessions per meeting. The process involved administering pre-tests to both groups, providing training to the experimental group, and conducting post-tests for both groups.



Table I below offers a detailed overview of the meeting specifics during the training.

# <u>Table I</u>

Training Modul Details

Session	Торіс	Objective
I	Building self-confidence in learning	Students should have a positive attitude towards themselves so that they can receive lessons well and be earnest in their studies
2	Fostering optimism in learning	Students should always maintain a positive outlook on learning
3	Having an objective attitude while learning	Students should be able to perceive problems or concepts accurately while learning
4	Being responsible in learning	Students should take responsibility for their actions in their studies
5	Thinking rationally and realistically while learning	Students should be able to think critically and analyze events using reasoning that aligns with reality during the learning process

Three specialists were appointed to assess the designed module; these experts had expertise in educational psychology and counseling, all holding Doctoral degrees. The feedback from these experts played a crucial role in refining the intervention module, ensuring its content aligned with the intervention objectives. The input from the experts encompassed various aspects such as the delivered content, worksheets, time duration, and implementation techniques.

In the study, two trainers were involved, each responsible for delivering training sessions. These trainers were counseling graduates with both undergraduate and postgraduate degrees. The age range of the trainers varied from 24 to 30 years old. The pre-test and post-test assessments were conducted by a trainer with an undergraduate degree in guidance counseling.



#### Data analysis

An independent t-test was used to analyze research data. The gain scores of the experimental and control groups were compared. Normality and homogeneity assumptions were tested before examining the hypothesis. The data analysis was conducted using the Statistical Package for the Social Sciences program, specifically version 25 of SPSS."

#### Results

This experimental research aims to examine the effectiveness of guided inquiry and information services in enhancing the self-confidence of middle school students. The data analysis results through gain scores indicate that guided inquiry and information services are effective in improving self-confidence in the experimental group but not in the control group. The data analysis results are presented in Table I below.

#### <u>Table 2</u>

Independent t-Test with Gain Score Results ( $N = 58$ )									
				Std.	Levene test			Sig. (2-	
		Ν	Mean	Deviation	F	Sig.	t	df	tailed)
Gain	Experimental	29	32.93	6.55	.591	.445	9.335	56	.000
score									
	Control	29	18.68	4.95					

Note: p < 0.05 indicates a statistically significant result.

Based on the gain score analysis using an independent t-test, the results indicate a significant difference in gain scores between the experimental group and the control group (t = 9.335 df = 56, p = 0.000). The experimental group showed an increasing in the mean score by 32.93 in contrast to the control group's mean score of 18.68. This analysis suggests that the guided inquiry and information services intervention effectively increased the level of self confidence in the experimental group, while no increased in self confidence scores was observed in the control group.



### Table 3

Descriptive result of self confidence means score (N=58)

	Groups	Mean	Std. Deviation
Pre-test	Experiment	111.62	8.22
	Control	114.86	6.83
Post-test	Experiment	144.55	4.80
	Control	115.41	7.08

<u>Table 2</u> presents the descriptive statistics for the self confidence mean scores of both the experimental group and the control group at two distinct time points: pre-test, and post-test. The table includes the mean and standard deviation for each group at each of these stages.

Initially, during the pre-test phase, the control group exhibited a slightly higher mean self confidence score, with a mean of 114.86, compared to the experimental group, which had a mean score of 111.62. This suggests that before any intervention, individuals in the control group may have experienced a somewhat higher level of self confidence.

Moving to the post-test results, only experimental groups showed an increase in their self confidence scores following the intervention. However, it is noteworthy that the experimental group demonstrated a more significant increasing in their mean score from 111.62 to 144.55. In contrast, the control group's mean score only slightly increased from 114.86 to 115.41. This indicates that the intervention had a more pronounced effect on increasing self confidence in the experimental group compared to the control group.

# Discussion

Based on the test results, the first hypothesis indicates a probability Asymp. Sig. (2-tailed) of 0.000, which is less than the significance level  $\alpha$  of 0.05, suggesting a significant difference in student self-



confidence (pretest and posttest) within the experimental group after participating in information services using the guided inquiry model.

The initial average score for student self-confidence (pretest) before treatment was 111.62, falling within the medium category. Following the treatment (posttest) involving information services with the guided inquiry model, there was a notable increase in the average posttest score to 144.55, categorizing it as high. Moreover, the N-gain score, representing the improvement from pretest to posttest in the experimental group, rose by 56%, indicating a quite effective impact.

In a related study, Arienta., et al (2017) also explored student self-confidence levels. The average pretest score was 121.91, falling into the high category, and after the treatment, the posttest score increased to 139.80, also categorized as high.

The rise in student self-assurance is evidenced by their engagement in learning responsibilities, active participation in guided inquiry-based information service activities, and belief in their own capabilities. Nevertheless, there remains a notable lack of student confidence, as indicated by behaviors such as classroom boredom, reluctance to ask questions, lack of belief in their abilities, low accountability in assignments, and pessimism. Difficulty concentrating during study sessions and accepting invitations to the canteen during class time are also indicative of this. Greenacre., et al (2014) assert that self-confidence entails the belief in one's capacity to execute specific actions to achieve desired outcomes. According to Pratiwi & Laksmiwati (2016), students with high self-confidence exhibit effective self-management in their learning endeavors, independent of external assistance. Conversely, Dimenggo & Yendi (2021) identify low self-confidence markers in learning, including diminished belief in abilities, lack of optimism, irresponsibility, subjectivity, and irrationality. Dewi (2013) describes individuals with low self-confidence as being prone to nervousness, possessing limited social skills, lacking faith in their abilities, easily succumbing to setbacks, harboring a sense of inadequacy, and preferring solitude. Komara (2016) further emphasizes that students with strong self-confidence display assurance and strive to maximize their potential, evident

through their accomplishments. Conversely, those with poor self-confidence struggle to cultivate their talents, interests, and potential, remaining passive and unable to fully realize their capabilities.

One crucial activity aimed at bolstering self-confidence within the educational setting is learning. Akbari & Sahibza (2020) highlight self-confidence as a pivotal factor in effective learning. Learning, as posited by Daryanto (2012), is a deliberate process undertaken by individuals to modify behavior and acquire new knowledge through experiential interactions with their surroundings. The primary objective of learning is to facilitate the optimal development of students' potential, with the enhancement of self-confidence serving as a key strategy in attaining this goal.

One approach utilized to enhance student self-confidence involves the implementation of the guided inquiry model. As outlined by Anam (2017), inquiry comprises a series of educational activities aimed at fostering students' systematic, critical, logical, and analytical abilities, enabling them to formulate their own conclusions with confidence. Guided inquiry, according to Sanjaya (2011), emphasizes critical and analytical thinking processes in the quest for definitive answers to posed problems. This method involves a dynamic question-and-answer exchange between teachers and students. Dewi & Wahab (2019) assert that the guided inquiry model not only enhances students' thinking skills but also cultivates social skills, learning attitudes, learning skills, and socio-emotional skills.

In alignment with Sukma and Muliati (2016), the guided inquiry model serves as a method to develop students' conceptual mastery and critical thinking, transforming students into active participants with a student-centered approach. The information services utilizing the guided inquiry model consist of five stages: formulating the problem, proposing a hypothesis, planning an investigation, collecting data, and drawing conclusions (Nurdiansyah & Fahyuni, 2016). Throughout these stages, the guidance and counseling teacher organizes students into groups to address issues related to self-confidence, recognizing the inquiry model's premise that humans inherently possess a drive to discover knowledge.



During the treatment, students actively engage in listening, comprehending, and responding, displaying enthusiasm in each stage of the information service. The initial meeting reveals students' eagerness to participate, attentively following the guidance and counseling teacher's directions and adhering to the guided inquiry model's instructions. At subsequent meetings, the use of the guided inquiry model in information services becomes more seamless due to students' improved understanding of the model's implementation. The guidance and counseling teacher's consistent guidance ensures that every student can actively partake in school learning activities. Consequently, school guidance and counseling teachers should strive to boost students' self-confidence, aiming for students to excel in their academic responsibilities and develop into independent individuals. The crucial role of self-confidence in successful academic pursuits underscores the importance of implementing information services using the guided inquiry model to enhance students' self-assurance in their educational journey.

After implementing information services using the guided inquiry model, a notable discrepancy emerged between pretest and posttest scores regarding student self-confidence. This discrepancy arises from students actively engaging and feeling challenged by participating in the implementation of information services using the guided inquiry model. Consequently, guidance and counseling educators must consistently enhance their professional competence. When utilizing the guided inquiry model for information services, guidance and counseling educators must possess thorough theoretical and practical knowledge to ensure optimal implementation and avoid errors that could compromise the effectiveness of the provided services. To mitigate such errors, educators can utilize, study, and follow the implementation guide for information services using the guided inquiry model, meticulously designed by researchers, to enhance students' self-confidence.

The second hypothesis testing results indicate a probability Asymp. Sig. (2-tailed) of  $0.000 < \alpha 0.05$ , demonstrating a significant variance in students' self-confidence within the control group before and after receiving information services without specialized intervention. The average pretest score for student self-confidence was 114.86, categorized as medium. Following the treatment of information



services without specialized intervention (i.e., not employing the guided inquiry model), the average posttest score for student self-confidence increased to 121.41, categorized as high. Notably, there was an 11% ineffectiveness in the value change (N-gain) observed between the pretest and posttest control groups.

Information services facilitate individuals' acquisition of essential information and knowledge, aiding in self-understanding and comprehension of the surrounding environment. Tohirin (2007) defines information services as endeavors aimed at addressing individuals' informational deficiencies. Aristiani (2016) emphasizes the significant efficacy of information services in bolstering students' self-confidence.

In the preceding explanation, it is suggested that in future guidance and counseling sessions, teachers can conduct structured information services without relying on special techniques. However, it is essential for guidance and counseling teachers to equip themselves with strong communication and classroom management skills to ensure the effectiveness of these information services.

Regarding the differences in self-confidence between the experimental and control groups, the third hypothesis was tested, revealing a statistically significant difference with a p-value of 0.000, which is less than the significance level of  $\alpha = 0.05$ . The mean self-confidence score for the experimental group was 144.55, while for the control group it was 121.41. Both groups received the same treatment regarding material on self-confidence, but the experimental group received information services using the guided inquiry model, whereas the control group received standard information services without any special treatment.

Analysis of the posttest scores shows a noticeable difference in average scores between the experimental and control groups, indicating that information services utilizing the guided inquiry model are more effective than those without it. This effectiveness can be attributed to the



advantages of the guided inquiry model in facilitating critical and analytical thinking processes, as described by Sanjaya (2011).

Inquiry-based service provides students with the freedom to explore their interests in learning, fostering creativity and productivity. Conversely, information services without the guided inquiry model appear monotonous, leading to reduced student engagement and enthusiasm.

Implementing information services without structured models, approaches, or media may result in suboptimal outcomes, as indicated by Ismawati (2023), who suggests that such approaches only marginally improve student discipline. Similarly, Ummah, Ilyas, & Sukma (2013) found that the use of the lecture method in informing students about intelligence test results yielded moderately positive perceptions, while using the inquiry method resulted in significantly better perceptions.

In conclusion, data analysis demonstrates that information services employing the guided inquiry model are more effective in enhancing students' self-confidence. However, information services without this model can still be beneficial if executed properly. Nonetheless, the guided inquiry model offers a more creative and engaging approach to information dissemination, ultimately leading to improved outcomes in student self-confidence.

#### Conclusion

Based on the research findings and subsequent discussion, it is evident that there exists a significant disparity in the self-confidence levels of students in the experimental group before and after their involvement in information services utilizing the guided inquiry model. This is underscored by a notable increase in the average pretest and posttest scores, as evidenced by the results of hypothesis testing conducted via the t-test. Such a phenomenon can be attributed to the students' enthusiasm, attentiveness, and adherence to instructions provided by the guidance and counseling teacher during the implementation of the guided inquiry model. Moving forward, it is imperative for



guidance and counseling teachers to adopt a proactive approach in enhancing guidance and counseling services, particularly in the realm of information services utilizing the guided inquiry model, thereby facilitating effective resolution of student-related issues.

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