JURNAL BIKOTETIK
(Bimbingan dan Konseling: Teori dan Praktik)
Volume 09 Number 2, 2025, pp 311-321
ISSN: Online 2580-5827
Open Access
https://journal.unesa.ac.id/index.php/jbk

PROBLEM SOLVING TECHNIQUES AS AN ATTEMPT TO IMPROVE THE ADAPTABILITY ABILITIES OF GRADE 7 STUDENTS

Manhaereiza Putri Lyanta Ramadhan[1], Eva Kartika Wulan Sari[2*], Imam Ariffudin[3]
Guidance and Counseling Study Program, Universitas PGRI Kanjuruhan Malang, Indonesia[1,2,3]
*Corresponding author E-mail: evakartikawulansari@unikama.ac.id

Received: January 21, 2025;
Revised: March 16, 2025;
Accepted August 13, 2025;
Published Online: November 29, 2025

The Bikotetik Journal is a Guidance and Counseling journal published by the Department of Guidance and Counseling, Faculty of Education, State University of Surabaya in collaboration with the Asosiasi Bimbingan dan Konseling Indonesia (ABKIN)

Abstrak

Kurangnya adaptasi merupakan masalah yang dialami oleh siswa pada umumnya terjadi saat mereka di lingkungan sekolah baru. Siswa akan mengalami berbagai persoalan, hal ini penting menjadi perhatian dari pihak sekolah melalui pelayanan profesionalnya untuk meningkatkan keterampilan adaptabilitas siswa di lingkungan yang baru. Tujuan dari penelitian ini adalah untuk mengetahui apakah layanan bimbingan kelompok dengan teknik *problem solving* dapat meningkatkan keterampilan *adaptabilitas* siswa. Penelitian ini menerapkan pendekatan kuantitatif dengan metode eksperimen dan desain *one group pre test post-test design*. Subyek penelitian berjumlah 10 anggota yang ditentukan menggunakan teknik *stratified random sampling*. Instrumen menggunakan skala kemampuan adaptasi yang di adopsi. Hasil Analisa dapat disimpulkan bahwa terdapat peningkatan keterampilan adaptabilitas siswa dengan selisis skor rata rata 8,2. Berdasarkan hasil penelitian, diketahui bahwa layanan bimbingan kelompok dengan teknik *problem solving* mampu meningkatkan keterampilan *adaptabilitas* siswa.
Kata Kunci: kemampuan adaptasi, bimbingan kelompok, *problem solving*.

Abstract

Lack of adaptation is a common problem experienced by students, especially when they enter a new school environment. Students may face various challenges during this adjustment period, making it important for schools to provide professional services that help enhance students' adaptability skills in their new surroundings. The aim of this study was to examine whether group guidance with the problem-solving technique could enhance students' adaptability skills.This research employed a quantitative approach with an experimental method using a one-group pre-test and post-test design. The research subjects consisted of 10 students selected through a stratified random sampling technique. The instrument used was an adopted adaptability skill scale. Based on the analysis results, it can be concluded that there was an improvement in students' adaptability skills, with an average score increase of 8.2 points. The findings indicate that group guidance with the problem-solving technique effectively enhances students' adaptability skills.
Keywords: adaptability skills, group work, problem solving

How to Cite:
Ramadhan, M. P. L., Sari, E. K. W., & Ariffudin, I. (2025). PROBLEM SOLVING TECHNIQUES AS AN ATTEMPT TO IMPROVE THE ADAPTABILITY ABILITIES OF GRADE 7 STUDENTS. Jurnal Bikotetik (Bimbingan Dan Konseling: Teori Dan Praktik), 9(2), 311–321. https://doi.org/10.26740/bikotetik.v9n2.p311-321

INTRODUCTION

According to Firda Rosanda (2019), an individual's success in maintaining quality of life is strongly influenced by their ability to balance personal needs with environmental demands. In the educational context, a student is considered to have good adaptability when they can adjust well to the school environment and interact positively with their peers. Conversely, students who struggle to adapt often face difficulties when encountering new situations, such as in boarding school environments, which may lead them to withdraw or even drop out of school.

Several changes that students experience are mostly related to their daily routines. At home, they were used to having their clothes, meals, and morning activities prepared or assisted by their parents. However, when they enter the boarding school, they must manage all these tasks independently. The environment also changes significantly from living only with their family to living and interacting daily with many people in the dormitory. This condition is supported by Mu'ti et al. (2023), who stated that students may experience *cultural shock* when they have to separate from their parents and family after being accustomed to living together. They must adapt to a new lifestyle as boarding school students, shifting from being cared for by their parents to becoming more independent. Furthermore, Khotimah et al. (2020) found that adolescents who enter Islamic boarding schools generally do so due to encouragement from their parents, family members, or close relatives. This external motivation may lead to difficulties in adapting to the boarding school environment, which in turn can cause adjustment problems among students living in dormitories.

The adolescent developmental stage is characterized by various experiences of uncertainty and new challenges. Such experiences demand that individuals adapt and adjust their functioning effectively to ensure healthy development (Hou & Abu, 2024). Therefore, adaptability is highly relevant during adolescence (Spitz & Steinhausen, 2023). Based on these concerns, it is important to offer guidance and counseling services through group counseling to prevent potential problems and support students' personal development within a group environment. According to (Lee et al., 2020) the goal of group counseling is to foster self-understanding and understanding of others, as well as to prevent the development of personal difficulties or problems (Iswatun Hasanah et al., 2017). This aligns with the findings who stated that group counseling services can effectively improve students' adaptability.

According to the American Psychological Association (APA), adaptability refers to "the ability to make suitable responses to changing circumstances and to modify or adjust one's behavior when facing different individuals or situations." (García-Perales & Almeida, 2019) Adaptability is defined as the appropriate cognitive, behavioral, and emotional adjustments made in response to uncertainty and new situations (Waldeck et al., 2021). From these definitions, it can be concluded that adaptability refers to an individual's ability to respond appropriately to changes in people or situations within their environmen.(Oleszkiewicz et al., 2022).

The environment plays an essential role in shaping a child's ability to adapt. Positive relationships with the environment can help children demonstrate appropriate behaviors, whereas negative interactions may hinder them. Human behavior essentially reflects an individual's efforts

to interact and adapt to their surroundings. Adaptation is a crucial aspect of understanding behavior, as it involves the ability to effectively respond to various changes and challenges (Herdiani et al., 2025). Students with good adaptability skills tend to be better prepared and more effective in dealing with life transitions in the future (Yordudom et al., 2025; Pellegrino et al., 2025). Based on the study conducted by (Nuryani, (2019), the negative impacts experienced by students (*santri*) who are unable to adjust themselves include decreased academic achievement, increased stress levels, low school well-being, low achievement motivation, and a tendency toward academic procrastination. These negative effects can hinder students' success in their studies; therefore, it is essential to foster good self-adjustment among *santri* in Islamic boarding schools (*pondok pesantren*). Therefore, it is important for students to develop adaptability skills to face uncertain situations in their environment.

The problem-solving technique can be utilized for preventive and developmental services in group guidance. According to (Gao et al., 2024; Kleinman et al., 2022). The problem-solving technique is a creative process whereby individuals evaluate changes in themselves and their surroundings, make informed decisions, and align these choices with their personal goals and values (Rahma et al., 2022). This indicates that problem solving is not only intended for overcoming problems but also serves as a preparation and self-development process to face change. Problem solving as the process of finding and discovering solutions to difficulties or challenges encountered in one's life (Nikolić & Antonijević, 2023). Based on these views, it can be inferred that the problem-solving technique is effective for equipping students to face future changes, prevent the escalation of potential problems, and develop critical thinking, decision-making, and self-adjustment skills in daily life.

A study conducted by Aprilianti et al., (2025) found that Grade X students at SMA Pasundan 1 Cimahi showed more positive changes after receiving group counseling services using the problem-solving technique. This was evident from the fact that 63% of participants in the experimental group who participated in the problem-solving group counseling sessions were able to adjust themselves effectively, compared to only 31% in the group that did not receive such services. The findings suggest that students who actively participated in group counseling sessions were more likely to learn and apply effective strategies for solving problems.

In addition to adaptability, problem-solving skills are also crucial, especially for students who are adjusting to a new academic environment. This skill involves identifying and resolving problems or difficulties encountered (Damayanti et al., 2020). Students who are skilled in problem solving tend to think critically, analytically, and reflectively, develop reasoning abilities, and make appropriate decisions (Nahak et al., 2023). These abilities are consistent with Piaget's theory of cognitive development, which suggests that from the age of 11 onward, individuals start to think systematically about complex problems and are able to plan solutions by evaluating different alternatives (Atiqah et al., 2024). The habit of solving problems helps students enhance their adaptability to the situations they face.

Previous studies on this topic have predominantly focused on students in general schools with non-boarding environments. In contrast, the present study centers on first-year students in a religious-based school, most of whom reside in Islamic boarding schools (*pondok pesantren*) and face more complex adaptation challenges. Moreover, students at MTs Shirotul Fuqoha had never received counseling services related to adaptation prior to this research. This finding is supported by Mu'ti et al. (2023), who stated that when self-adjustment is well-developed, the adaptation process becomes easier and more successful. Their study revealed a positive influence and

relationship between the adaptation process of boarding school students (*santri*) and their self-adjustment, including adjustment to themselves, to others, to the surrounding environment, and to God.

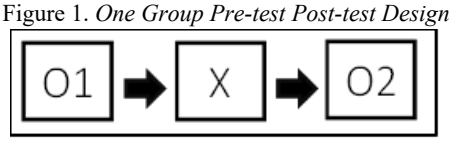
This study aims to help students develop themselves and improve adaptability skills toward uncertain changes via group guidance using the problem-solving technique. This approach is considered relevant for students undergoing a period of transition or adaptation. The technique not only addresses existing problems but also equips students with critical and adaptive thinking skills to face future challenges independently. Particularly for seventh-grade students at MTs Shirothul Fuqoha', who are newly entering the boarding school environment, adaptability becomes a crucial aspect in preventing more serious issues and coping with environmental changes, strict regulations, and new routines.

METHODS

Research Type

This study employed a quantitative approach with a pre-experimental method. The research design used was a one-group pre-test and post-test design (Harerimana et al., 2023), in which treatment was administered to a single experimental group. The researcher applied this design because it is suitable for preliminary studies aimed at determining whether an intervention is feasible for further and more rigorous testing. This design allows observation of changes that occur before pre-test and after the treatment post-test.

Figure 1. *One Group Pre-test Post-test Design*



According to Sugiyono (2022), a population refers to a generalization area comprising objects or subjects that possess specific qualities and characteristics defined by the researcher to be examined and used as the basis for drawing conclusions.

Participants

The population in this study consisted of seventh-grade students from four classes at MTs Shirothul Fuqoha', with a total of 116 students. The population was categorized based on levels of adaptability skills, including very high, high, moderate, low, and very low, as determined by the pre-test results.

A sample refers to a subset of the population that is chosen to be included in the study. The sampling technique used in this research was probability sampling with the stratified random sampling method. According to Sugiyono (2022), stratified random sampling is a sampling method in which the population is divided into several groups (strata) based on certain characteristics, and samples are then randomly selected from each stratum to create a research sample that accurately represents the overall characteristics of the population.

Data Analysis Techniques

The data collection technique in this study used a Likert-type scale as the measurement instrument. The instrument was adopted from Martin et al. (2013), in which students were presented with nine statements measured using a seven-point scale ranging from 1 (strongly disagree) to 7 (strongly agree). Items 1–6 represented the cognitive–behavioral component at the first level, while items 7–9 represented the affective component at the first level.

The adaptability skill scale used as the measurement tool consisted of seven response categories: Strongly Agree (SA), Agree (A), Somewhat Agree (SWA), Neutral (N), Somewhat

.

Disagree (SWD), Disagree (D), and Strongly Disagree (SD) are the response options used in the Adaptability Scale, which was designed to measure the extent to which students exhibit appropriate cognitive, behavioral, and affective adjustments when facing uncertainty and/or new situations, resulting in constructive goals or outcomes.

The initial step in the data analysis process involved examining the results of the instruments completed by the students as respondents. In this study, several prerequisite tests were conducted as follows:

1. Normality Test

The normality test was carried out to assess whether the data collected from the sample followed a normal distribution. Normally distributed data are one of the main requirements for conducting parametric tests, while data that are not normally distributed are examined using non-parametric analysis methods. In this study, the Shapiro–Wilk test was employed because the sample size was relatively small (fewer than 50 participants) (Souza et al., 2023). (González-Estrada & Cosmes, 2019)

The normality test was carried out using SPSS version 25 with a significance level (α) of 0.05. The decision criteria were as follows: (1) If the significance value ($p > 0.05$), the data are normally distributed nad (2) If the significance value ($p < 0.05$), the data are not normally distributed.

2. Homogeneity Test

The homogeneity test was conducted after the data were found to be normally distributed (Lemeshko & Veretel'nikova, 2018). (Song & Modarres, 2019)This test was carried out using the Levene test with the help of SPSS version 25. The purpose of the homogeneity test is to determine whether the samples drawn from the same population are homogeneous (having similar variances) or heterogeneous (having different variances). If the data are homogeneous, the analysis can proceed using a parametric statistical test (t-test) to compare the two means. The decision criteria for the homogeneity test are as follows: (1) If the probability value ($p > 0.05$), the data are homogeneous and (2) If the probability value ($p < 0.05$), the data are heterogeneous.

3. Hypothesis Testing

This study involved two related variables: measurements taken before and after the treatment. Therefore, a paired sample t-test was employed to compare the two related samples and determine whether a significant difference existed between them. This test model is appropriate for analyzing pre-test and post-test research designs with a small sample size. The paired t-test evaluates the effectiveness of a given treatment by comparing results from the same group at two different points in time (Grabchak, 2023). (Guo et al., 2020)

The analysis was conducted using SPSS version 25. The decision criteria for the paired t-test were based on the asymptotic significance (2-tailed) value, as follows:

1. If the value of Asymp. Sig (2-tailed) < 0.05, then H_0 is rejected and H_1 is accepted.
2. If the value of Asymp. Sig (2-tailed) > 0.05, then H_0 is accepted.

The hypotheses of this study are formulated as follows:

- H_0 = Group guidance using the problem-solving technique does not improve students' adaptability skills.
- H_1 = Group guidance using the problem-solving technique improves students' adaptability skills.

ISSN: Online 2580 - 5827

RESULTS AND DISCUSSION

Results

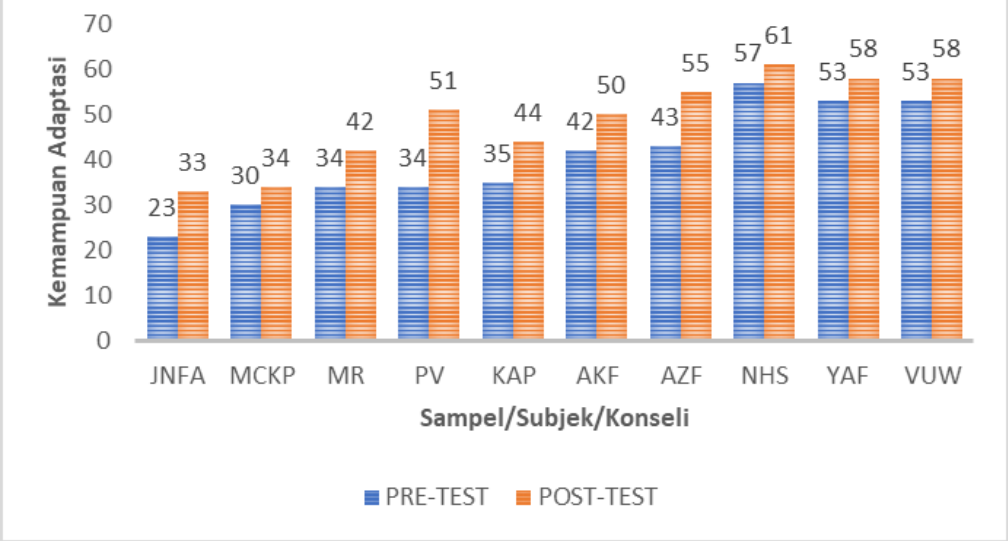


Figure 2. Graph of Pre-Test and Post-Test Score Comparison

There was an increase in the adaptability skill scale scores in this study. The improvement is presented in the following table, which displays the pre-test and post-test scores:

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	Pre_Test Kemampuan Adaptasi - Post_Test Kemampuan Adaptasi	-8.20000	4.10420	1.29786	-11.13597	-5.26403	-6.318	9	.000

Figure 3. t-Test Result

Based on the diagram in Figure 1.1, there is a clear difference between the scores obtained before pre-test and after post-test the treatment, indicating an improvement in students' adaptability skills. The increase shows an average difference of 8.2 points from the pre-test to the post-test.

The results of the t-test indicated an improvement in students' average adaptability scores before and after participating in group counseling sessions using the problem-solving technique. The mean pre-test score was 40.4, which increased to 48.6 in the post-test. The paired sample t-test yielded a value of $t = 6.318$ with $p = 0.000$ ($p < 0.05$). This indicates a significant difference between the scores before and after the treatment. Although the improvement was relatively small (with an average difference of 8.2 points), statistically, the increase was significant. Therefore, it can be concluded that group counseling using the problem-solving technique has a positive effect on students' adaptability skills, even though its effectiveness level remains relatively low.

.

Discussion

The results of this study show that group counseling using the problem-solving technique is effective in improving students' adaptability skills at MTs Shirothul Fuqoha. The mean difference of 8.2 points indicates that students became more capable of understanding problems, identifying alternative solutions, and evaluating the steps they took during the adaptation process. This finding is consistent with the definition of adaptability proposed by Martin et al. (2013), which refers to the ability to adjust cognitively, behaviorally, and affectively when facing uncertainty and new situations. These three aspects can be developed through group counseling services using the problem-solving technique. This result also supports (Fatahillah et al., 2022; Punia et al., 2022) view that the goal of problem solving is to enhance thinking skills, particularly in analyzing the causes, effects, and purposes of a problem. Through this method, students are trained to follow systematic steps in problem resolution.

According to Piaget, understanding and comprehension develop as an individual grows from birth to adulthood. Piaget argued that cognitive development takes place through four distinct stages: the sensorimotor stage, the preoperational stage, the concrete operational stage, and the formal operational stage. Each stage corresponds to a specific age range and is characterized by different patterns of thinking, with varying qualities of progression (Kuan & Zhang, 2022). Piaget stated that reasoning begins to emerge at around the age of seven, during the concrete operational and formal operational stages. Logical reasoning, however, becomes more prominent during the formal operational stage, which typically appears between the ages of eleven and fifteen. At this stage, individuals start to move beyond concrete experiences and engage in thinking that is more abstract, idealistic, and logical. The abstract quality of formal operational thinking is particularly evident in the ability to solve verbal problems (Fadiana et al., 2019; Veraksa, 2019).

Furthermore, according to Piaget's theory of cognitive development, children between the ages of 7 and 11 are in the concrete operational stage, during which they can think logically about concrete events but are still limited in solving abstract problems. As they reach the formal operational stage (around ages 11–15 years), their thinking becomes more abstract, logical, and idealistic. At this stage—typical of early adolescence—students begin to develop the ability to engage in higher-order reasoning, including abstract and verbal problem-solving (Atiqah et al., 2024).

According to Piaget's theory of cognitive development, children aged 7–12 are in a stage where they start to apply logical reasoning to concrete objects and events. However, they still struggle to solve abstract problems without tangible references. Therefore, group counseling using the problem-solving technique helps guide students to think more systematically and critically about the issues they encounter (Atiqah et al., 2024).

Children's reasoning abilities are still limited. Although they are capable of logical reasoning and understanding causal relationships, they are not yet able to perform hypothetical or abstract reasoning. At this stage, children can only solve problems when the objects involved are empirical (real) or perceivable through their senses, rather than imaginary. Specifically, in the concrete operational stage, cognitive operations are based on things that appear real or tangible. Children still experience difficulties in solving problems that involve multiple variables. For example, when an object A is transformed into object B and then returned to its original form as object A. In mathematics, this stage is reflected in basic operations such as addition and subtraction, for instance, 4 + 1 = 5 and 5 − 1 = (Imanulhaq & Ichsan, 2022)

According to Torres-Peña, Peña-González, Lara-Orozco, Ariza, & Vergara (2025). one limitation of the problem-solving technique is that not all students can effectively apply it due to

differences in their critical and creative thinking abilities. Moreover, this technique can be time-consuming, making it less effective in situations that require quick resolutions. Nevertheless, allocating sufficient time allows for the development of strong group dynamics and trust among members. When students feel comfortable sharing and discussing their ideas, they can gain a deeper understanding of the problem, identify its root causes more accurately, and generate more thoughtful solutions.

Guiding students to engage in deep and critical thinking requires sufficient time, as it cannot be rushed if meaningful problem resolution is to be achieved. In this study, the problem-solving technique consisted of six stages, conducted over two sessions of 45 minutes each. The limited duration forced group members to quickly grasp the steps and immediately apply them to a given case, which became one of the main challenges faced by the researcher during implementation.

A longer and more comprehensive problem-solving process, however, can help students develop essential skills such as creative thinking and effective decision-making by exploring multiple alternative solutions. As stated by Ayu (2024), the problem-solving group counseling process requires adequate time for participants to progress through each stage effectively—from identifying problems to implementing solutions so that their problem-solving and adaptability skills can develop optimally.

Guidance and counseling media refer to all forms of tools or materials that can be utilized to deliver guidance and counseling messages, which are capable of stimulating students' or counselees' thoughts, feelings, attention, and abilities in order to understand themselves, direct their behavior, and make decisions to solve the problems they encounter. According Zaini et al (2020), the functions of guidance and counseling media are as follows:

1. The use of media in guidance and counseling is not merely an additional function, but it has its own role as an assisting tool to create a more effective guidance and counseling situation.
2. Guidance and counseling media serve to facilitate the guidance and counseling process. This function implies that through the use of such media, students can more easily understand the problems they experience or grasp the presented materials more easily and quickly.
3. Guidance and counseling media constitute an integral part of the overall guidance and counseling service process. This means that the media function as one of the components that do not stand alone but are interconnected with other components in order to create the desired situation.

During the implementation of group counseling sessions, the group members demonstrated a collaborative and supportive dynamic. Each member actively contributed to the process, and when one encountered confusion or difficulty, peers provided clarification and assistance. This mutual support fostered a conducive environment where active members encouraged those who were more passive to participate and express their opinions.

To further facilitate communication, the researcher assisted students in articulating their thoughts by allowing them to write their responses on the provided sticky notes. These written responses were then read collectively to emphasize the variety of perspectives within the group. This activity enabled members to gain a deeper understanding through reflection on the written ideas of their peers.

Over the course of the sessions, gradual improvement was observed among group members in their participation and ability to express themselves. Although challenges were encountered at the beginning, statistical analysis indicated an overall increase in outcomes, even though the change was not highly significant.

.

SUMMARY

Conclusion

Based on the data obtained, the researcher found that group counseling using the problem-solving technique effectively improved the adaptability of seventh-grade students at MTs Shirothul Fuqoha'. This conclusion is supported by the obtained significance value, which was less than 0.05, indicating that the difference is statistically significant.

The mean pre-test score was 40.4, while the mean post-test score increased to 48.6. The results of the paired sample t-test yielded a t-value of 6.318 with a significance level of $p = 0.000$ ($p < 0.05$), indicating a significant difference in students' adaptability scores before and after the treatment. Although the improvement was relatively small (with a mean difference of 8.2 points), the increase was statistically meaningful. Therefore, it can be concluded that group counseling with the problem-solving technique has a positive effect on students' adaptability skills, even though its overall level of effectiveness is still considered low.

Recommendations

The author hopes that the findings of this study can serve as a preliminary reference for future research. This study only examined group counseling using the problem-solving technique to improve students' adaptability skills. It is expected that future researchers can further develop this study by increasing the number of counseling sessions to enhance the effectiveness of each step in the problem-solving process during group guidance activities.

BIBLIOGRAPHY

Aprilianti et Al. (2025). Penerapan Bimbingan Kelompok Dengan Teknik. 13(1), 83–92. Https://Doi.Org/10.22460/Fokus.V8i1.

Atiqah, N., Sulhan, A., Ardaniah, N. H., & Rahmadi, M. S. (2024). Behavior : Jurnal Pendidikan Bimbingan Konseling Dan Psikologi Volume 1 No 1 Mei 2024 Periodisasi Perkembangan Anak Pada Masa Remaja: Tinjauan Psikologi. 1(1), 9–36.

Ayu, A. T. (2024). Penerapan Teknik Problem Solving Untuk Meningkatkan Kemampuan Perancanaan Karier Siswa Kelas Xii Di Sma Negeri 5 Bulukumba (Vol. 22, Issue 02).

Damayanti, N. W., Parta, N., Chandra, D., Mega, P., & Loupatty, L. (2020). Learning Trajectory Student To Solve Problem Based On Manipulatives. International Journal Of Scientific & Technology Research, 9, 2. Www.Ijstr.Org

Fadiana, M., Amin, S. M., Lukito, A., Wardhono, A., & Aishah, S. (2019). Assessment Of Seventh Grade Students' Capacity Of Logical Thinking. Jurnal Pendidikan Ipa Indonesia, 8(1), 75–80. Https://Doi.Org/10.15294/Jpii.V0i0.11644

Fatahillah, A., Liyandri, V. A., & Monalisa, L. A. (2022). Senior High School Students' Higher Order Thinking Skills In Solving Combinatorics Problems. Mathematics Education Journal, 16(1), 89–102. Https://Doi.Org/10.22342/Jpm.16.1.15121.89-102

Firda Rosanda, Nu. H. (2019). Kemampuan Adaptasi Belajar Siswa Madrasah Tsanawiyah Yang Berlatar Belakang Pendidikan Umumwebsite: Journal.Unipdu.Ac.Id/Index.Php/Jpi/Index. Dikelola Oleh Program Studi Pendidikan Agama Islam (Pai) Fakultas Agama Islam (Fai) (Vol. 3, Issue 2).

Gao, S., Zhang, L., Shangguan, F., & Yang, J. (2024). The Effect Of Omo Learning On High School Students' Problem-Solving Skills In Physics. Thinking Skills And Creativity, 54, 101674. Https://Doi.Org/10.1016/J.Tsc.2024.101674

García-Perales, R., & Almeida, L. S. (2019). An Enrichment Program For Students With High Intellectual Ability: Positive Effects On School Adaptation. Comunicar, 27(60), 39–47. Https://Doi.Org/10.3916/C60-2019-04

González-Estrada, E., & Cosmes, W. (2019). Shapiro–Wilk Test For Skew Normal Distributions Based On Data Transformations. Journal Of Statistical Computation And Simulation, 89(17), 3258–3272. Https://Doi.Org/10.1080/00949655.2019.1658763

Grabchak, M. (2023). How Do We Perform A Paired T-Test When We Don't Know How To Pair? American Statistician, 77(2), 127–133. Https://Doi.Org/10.1080/00031305.2022.2115552

Guo, X., Wang, Y., Zhou, N., & Zhu, X. (2020). Optimal Weighted Two-Sample T-Test With Partially Paired Data In A Unified Framework. Journal Of Applied Statistics, 48(6), 961. Https://Doi.Org/10.1080/02664763.2020.1753027

Harerimana, A., Duma, S. E., & Mtshali, N. G. (2023). Measuring Perceived Learning Gains Of Undergraduate Nursing Students In Ict Skills: One Group Pre-Test And Post-Test Design. Contemporary Nurse, 59(2), 114–131. Https://Doi.Org/10.1080/10376178.2023.2230309;Wgroup:String:Publication

Hou, X., & Abu, B. B. (2024). Factors influencing cross-cultural adaptation among international students in china: an empirical investigation. Environment and Social Psychology, 9(8). https://doi.org/10.59429/esp.v9i8.2944

Imanulhaq, R., & Ichsan, I. (2022). Analisis Teori Perkembangan Kognitif Piaget Pada Tahap Anak Usia Operasional Konkret 7-12 Tahun Sebagai Dasar Kebutuhan Media Pembelajaran. Waniambey: Journal Of Islamic Education, 3(2), 126–134. Https://Doi.Org/10.53837/Waniambey.V3i2.174

Iswatun Hasanah, Ishlakhatus Sa'idah, Diana Vidya Fakhriyan, & Anna Aisa. (2017). Bimbingan Kelompok Teori Dan Praktik. In Layanan Bimbingan Dan Konseling Kelompok (Issue December 2022).

Jin, S., & Ju, I. (N.D.). Issn (Print) 2005-3673 Issn (Online) 2093-758x. J Korean Acad Nurs, 47(2). Https://Doi.Org/10.4040/Jkan.2017.47.2.199

Khotimah. (2020). Hubungan Remaja Masuk Pesantren Dengan Kemampuan Adaptasi. Jurnal Ners Indonesia, 10(2), 194. Https://Doi.Org/10.31258/Jni.10.2.194-203

Kleinman, E., Shergadwala, M. N., Teng, Z., Villareale, J., Bryant, A., Zhu, J., & El-Nasr, M. S. (2022). Analyzing Students' Problem-Solving Sequences: A Human-In-The-Loop Approach. Journal Of Learning Analytics, 9(2), 138–160. Https://Doi.Org/10.18608/Jla.2022.7465

Kuan, T. Y. J., & Zhang, L. F. (2022). Thinking Styles And Time Perspectives. Educational Psychology, 42(1), 119–137. Https://Doi.Org/10.1080/01443410.2020.1730306

Lee, S. J., Kim, S., Kim, G.-U., Park, J. Y., & Keum, R. (2020). Relationships among Suicide Traumatic Experiences, Attitudes toward Suicide, Depression, Self-efficacy, and Social Support in General Adults. *Journal of Korean Academy of Psychiatric and Mental Health Nursing*, *29*(1). https://doi.org/10.12934/jkpmhn.2020.29.1.1

Lemeshko, B. Y., & Veretel'nikova, I. V. (2018). Power Of K-Sample Tests Aimed At Checking The Homogeneity Of Laws. *Measurement Techniques* 2018 61:7, 61(7), 647–654. Https://Doi.Org/10.1007/S11018-018-1479-1

Martin, A. J., Mansour, M., Anderson, M., Gibson, R., Liem, G. A. D., & Sudmalis, D. (2013). The role of arts participation in students' academic and nonacademic outcomes: A longitudinal study of school, home, and community factors. *Journal of Educational Psychology*, 105(3), 709–727. https://doi.org/10.1037/a0032795

.

Mu'ti Et Al. (2023). Psikologi Santri (Analisis) Proses Adaptasi Dan Penyesuaian Diri Santri Di Indonesia. Edukasi Islami: *Jurnal Pendidikan Islam*, 12, 1731–1746. Https://Doi.Org/10.30868/Ei.V12i02.4067

Nahak, M. S., Upa, M. D. P., & Apriliana, I. P. A. (2023). Hubungan Penyesuaian Diri Dengan Keterampilan Problem Solving Pada Siswa Kelas Vii Smp. *Jurnal Bimbingan Konseling Flobamora*, 1(3), 121–128. Https://Doi.Org/10.35508/Jbkf.V1i3.12413

Nikolić, N., & Antonijević, R. (2023). Problem-Solving In Biology Teaching: Students' Activities And Their Achievement. International Journal Of Science And Mathematics Education 2023 22:4, 22(4), 765–785. Https://Doi.Org/10.1007/S10763-023-10407-5

Nuryani. (2019). Kata Kunci: Penyesuaian Diri, Santri, Pondok Pesantren. Bimbingan Dan Konseling, 4(1), 174–179.

Oleszkiewicz, S., Weiher, L., & Mac Giolla, E. (2022). The Adaptable Law Enforcement Officer: Exploring Adaptability In A Covert Police Context. Legal And Criminological Psychology, 27(2), 265–282. Https://Doi.Org/10.1111/Lcrp.12209

Pellegrino, G., Feraco, T., Meneghetti, C., & Carretti, B. (2025). Ready For What's Next? The Associations Between Social, Emotional, And Behavioral Skills And Career Adaptability In High School Students. Journal Of Adolescence, 97(5), 1200–1210. Https://Doi.Org/10.1002/Jad.12486

Punia, P., Malik, R., Bala, M., Phor, M., & Chander, Y. (2022). Relationship Between Logical Thinking, Metacognitive Skills, And Problem Solving Abilities: Mediating And Moderating Effect Analysis. *Polish Psychological Bulletin*, 53(4), 243–253. Https://Doi.Org/10.24425/Ppb.2022.143370

Rahma, A., Yuliani, I., Puspitarini, D., & Krisphianti, Y. D. (2022). Layanan Bimbingan Kelompok Dengan Teknik Problem Solving (Solusi Yang Ditawarkan Untuk Meningkatkan Pemahaman Manajemen Waktu Pada Siswa). *Prosiding Konseling*, 434–440. Https://Proceeding.Unpkediri.Ac.Id/Index.Php/Kkn/Article/View/3102

Ranie Tri Herdiani, Mika Sugarni, Rahmawati Shoufiah, Rista Ismarida, Fansiska Romina, Kurniasih Widayati, Rini Gusya Liza, Fitriyani Bahriyah, Adek Setiyani, Nur Rasdianah, F. R. (2025). Kesehatan Mental Remaja (Sp. K. Dr. Ns. Thika Marliana, M.Kep., Sp.Kep.Jiwa Dr. Indria Hafizah, M.Biomed., Ed.). *Eureka Media Aksara*, Januari 2025 Anggota Ikapi Jawa Tengah No. 225/Jte/2021.

Spitz, A., & Steinhausen, H.-C. (2023). Development of Family Adaptability and Cohesion from Adolescence to Young Adulthood and Associations with Parental Behavior. *Journal of Child and Family Studies*, *32*(7), 2036–2045. https://doi.org/10.1007/s10826-023-02562-8

Song, Y., & Modarres, R. (2019). Interpoint Distance Test Of Homogeneity For Multivariate Mixture Models. *International Statistical Review*, 87(3), 613–638. Https://Doi.Org/10.1111/Insr.12332

Souza, R. R. De, Toebe, M., Mello, A. C., & Bittencourt, K. C. (2023). Sample Size And Shapiro-Wilk Test: An Analysis For Soybean Grain Yield. *European Journal Of Agronomy*, 142, 126666. Https://Doi.Org/10.1016/J.Eja.2022.126666

Sugiyono. (2022). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Bandung: Alfabeta.

Torres-Peña, R. C., Peña-González, D., Lara-Orozco, J. L., Ariza, E. A., & Vergara, D. (2025). Enhancing Numerical Thinking Through Problem Solving: A Teaching Experience for Third-Grade *Mathematics. Education Sciences*, 15(6), 667. https://doi.org/10.3390/educsci15060667

Veraksa, N. E. (2019). Dialectical Thinking: Logics And Psychology. *Cultural-Historical Psychology*, 15(3), 4–12. Https://Doi.Org/10.17759/Chp.2019150301

Waldeck, D., Pancani, L., Holliman, A., Karekla, M., & Tyndall, I. (2021). Adaptability And Psychological Flexibility: Overlapping Constructs? *Journal Of Contextual Behavioral Science*, 19, 72–78. Https://Doi.Org/10.1016/J.Jcbs.2021.01.002

Yordudom, T., Boonkaew, S., Imjai, N., Moghadas, S., Khuadthong, B., & Aujirapongpan, S. (2025). Developing Career Intention Of Gen Z Hospitality Students: The Roles And Matters Of Experiential Learning, Problem-Solving Skills, Positive Thinking Skills And Adaptability Skills. *Journal Of Hospitality, Leisure, Sport & Tourism Education*, 37, 100560. Https://Doi.Org/10.1016/J.Jhlste.2025.100560

Zaini, A., Dianto, M., & Mulyani, R. R. (2020). Pentingnya Penggunaan Media Bimbingan Dan Konseling Dalam Layanan Informasi. *Prosiding Seminar Nasional Bimbingan Dan Konseling Universitas Negeri Malang*, 0(0), 126–131. Http://Conference.Um.Ac.Id/Index.Php/Bk/Article/View/68

.