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Implementation of the Reasoning Training Program for Optimizing the UTBK Test at SMAN 1 Parepare

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Abstract: This community service aims to analyze and evaluate the implementation of a reasoning training program for optimizing the UTBK at SMAN 1 Parepare. The service involved 40 students from the twelfth grade who served as participants in the training program. The community service method used was quasi-experimental with a single-group pretest-posttest control design. The data analysis showed that the reasoning training program was effective in improving the UTBK results. There was a significant improvement in the average scores of the group that underwent the training compared to the control group. Additionally, the training program also assisted students in developing analytical and critical skills, which had a positive impact on their overall academic performance. This community service concludes that the implementation of the reasoning training program plays a crucial role in optimizing the UTBK at SMAN 1 Parepare. The results of this service contribute significantly to efforts to enhance student preparation for facing the UTBK and support their success in achieving better results in college admissions.

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Introduction

Higher education is one of the most important components in the development of human resources and the advancement of a nation. College entry selection in Indonesia is done using a variety of processes, including a computer-based written examination. (UTBK). The UTBK test has become a vital part of the selection process for new student admission to the institution, and it plays an important role in assessing potential students' prospects of entering the selected study program. Given the importance of the UTBK Test results in the selection process, the quality of the UTBK Test results becomes critical in this context. In order to compete with a huge number of other exam participants, candidate students must have exceptional academic and cognitive ability. In the face of this challenge, the ability to reason is an important factor that influences the performance of participants in attaining good results on the UTBK Test (Sabillawati & Khasanah Ardiana, 2022).

The ability to think logically, analytically, and critically is required for recognition, which is a necessary cognitive skill (Mahmud & Mohd Drus, 2023). Reasoning allows a person to comprehend information, assess circumstances, and develop appropriate solutions. In the setting of the UTBK Test, reasoning becomes critical in answering complicated problems in a limited amount of time. As a result, improving reasoning skills is the primary emphasis of the endeavor to optimize UTBK Test results.

As one of the region's best high schools, SMAN 1 Parepare appreciates the value of mature preparation for students facing the UTBK Test. To that end, the school has committed

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to implementing a Reward Training Program to assist pupils in developing the thinking abilities required for the assessments. Community servicesers and educators have paid close attention to the deployment of training programs to improve reasoning skills in the setting of college entrance exams. As the academic world becomes more competitive, it is vital to educate students with effective cognitive abilities such as critical reasoning (Arsaythamby & Zubainur, 2014). This section provides a review of the relevant literature on the current state of reasoning training programs and their impact on the optimization of computer-based written tests (UTBK) in Indonesia, particularly in the context of SMAN 1 Parepare.

Previous study has consistently demonstrated that reasoning skills are significant in academic accomplishment and problem-solving skills across a wide range of courses (Da, 2023). Individuals with good reasoning abilities are better able to understand complex material, draw logical conclusions, and apply knowledge effectively in a range of circumstances. Given the cognitive demands of UTBK, reasoning is an important component influencing student performance. Several studies have been conducted to assess the effectiveness of reasoning training programs in an educational setting. Structured activities and exercises aiming at improving students' critical and analytical thinking abilities are common in these programs (Nuangchalerm, n.d., 2019). This form of intervention has been demonstrated to improve students' problem-solving ability as well as their academic achievement (Greco et al., 2023; P. Dumigsi & B. Cabrella, 2019).

The impact of reasoning training programs on standard examinations in the context of college entrance has become an interesting community services topic for community servicesers. Several countries have performed studies on reasoning therapies, concentrating on a range of standard assessments (Kim, Knowles, Scianna, Lin, & Ruipérez-Valiente, 2023). According to the findings of the community services, reasoning training helps to increase test scores, particularly in areas that involve analytical and critical thinking (Jreisat, 2023; Schoeller, 2023).

Although the benefits of reasoning training programs in general have been extensively demonstrated, specific interventions for UTBK preparation have attracted increased attention in recent years. The community servicesers have delved into the creation and implementation of programs that are adapted to UTBK's specific issues. These studies demonstrate positive outcomes, demonstrating that UTBK-oriented reasoning training can increase students' capacity to meet the exam's cognitive demands effectively (Staal et al., 2022).

Given the growing importance of UTBK in college admissions, educators and policymakers have investigated measures to increase student readiness for these exams. The current situation recognizes the significance of good reasoning training as a viable way to tackling the specific issues confronting UTBK and its role in performance optimization. In light of the available literature, the study seeks to contribute to the current situation by assessing the execution of the reasoning training program in SMAN 1 Parepare, with a particular emphasis on its impact on the optimization of student performance at UTBK. The study's findings could potentially provide insights for educational methods and governmental decisions in Indonesia to improve college entrance exam preparation and drive student achievement (Popova, 2021)(Khatreja, 2023).

This community service aims to analyze and evaluate the implementation of a reasoning training program for optimizing the UTBK at SMAN 1 Parepare. This community service is projected to add greatly to the knowledge of the effectiveness of the reasoning training program and its impact on UTBK Test scores as well as overall academic performance by involving students from Class XII as community services samples. Finally, it

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is expected that the findings of this community service will make a significant contribution to the development of education in SMAN 1 Parepare and serve as an important reference for schools and other related institutions in supporting the optimization of the university admissions selection process in Indonesia.

Method

The method of this community service was designed as a quaternary experiment with a single control group. (Pretest-posttest design with a single group). This method enables to compare the pre- and post-test results of the reasoning training group with the control group that did not receive intervention. The participants of this community service were 40 SMAN 1 Parepare class XII students. Participants are drawn from one class that will be an intervention group following a reasoning training program, while the other class will be a control group. The Computer-Based Written Test (UTBK), which is a typical test for university selection in Indonesia, was employed in this study. The UTBK test will be used as a pretest and posttest to assess participants' progress after completing the reasoning training program. The data acquired in this study are the participants' pre-test and post-test scores, i.e. the outcomes of the UTBK Test before and after the reasoning training program. The data will also include information about participant involvement and training session participation, data collection procedures, and data analysis techniques. The obtained data will be examined statistically using appropriate methodologies, such as a paired t-test to compare pre- and post-test results in the intervention group. The analysis results will be utilized to determine the efficacy of the reasoning training program in enhancing UTBK Test scores in SMAN 1 Parepare.

In addition to community services aspects, the reasoning training program will include community service activities in SMAN 1 Parepare. In this framework, community servicesers and educators will collaborate with teachers and school staff to support the implementation of training programs. This service activity includes:

Discernment and Socialization: The community services team will provide discernment on the significance of reasoning abilities in the context of the UTBK test, as well as the benefits of the reasoning training program for students. Teachers, students' parents, and 12th grade students will be socialized in order to obtain support and involvement in the program.

Manufacturing Materials and Training Modules: At SMAN 1 Parepare, the community services team will collaborate with teachers and school staff to create training materials and reasoning modules that meet the curriculum and student demands.

Monitoring and Evaluation: During the training program's implementation, the community services team will conduct monitoring and evaluation to ensure that the program is running smoothly and attaining the desired results. Evaluations include gathering comments from participants and teachers, as well as measuring the effectiveness of training based on test results and student growth. This community services, through blending community services and dedicated methodologies, is projected to considerably contribute to the optimization of the UTBK test at SMAN 1 Parepare, as well as provide immediate advantages for participants and schools in strengthening student reasoning skills.

Result and Discussion

Results Implementing the Training Program for the Optimization of the UTBK Test in the application of devotion in SMAN 1 Parepare has a favorable influence on participants and

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schools. Here are the outcomes of hard work: Students in class XII at SMAN 1 Parepare improved significantly in their reasoning skills after participating in the reward training program. The post-test findings revealed an overall improvement in critical and analytical thinking skills. Participants in the reasoning training program improved their UTBK test scores as their reasoning skills improved. The intervention group's average posttest score was much greater than their pre-test score. This suggests that reasoning instruction has a positive impact on student exam preparation. Positive Feedback from Participants and Schools: We received positive feedback from participants and school employees during the training program's deployment. Participants said that reasoning training improved their understanding of techniques and approaches for responding to UTBK questions. Students also believe that this training will boost their confidence and better prepare them for the exam. Active Student Participation: In addition, the percentage of student participation in the training program is very high. Students enthusiastically participate in conversation and practice, demonstrating their eagerness to improve their thinking abilities. The findings of this award reveal that the Training Program's execution has a beneficial impact on the optimization of the UTBK Test in SMAN 1 Parepare. Increased student reasoning skills following training indicate that the program is beneficial in increasing students' critical and analytical thinking skills, which contribute to better test results.

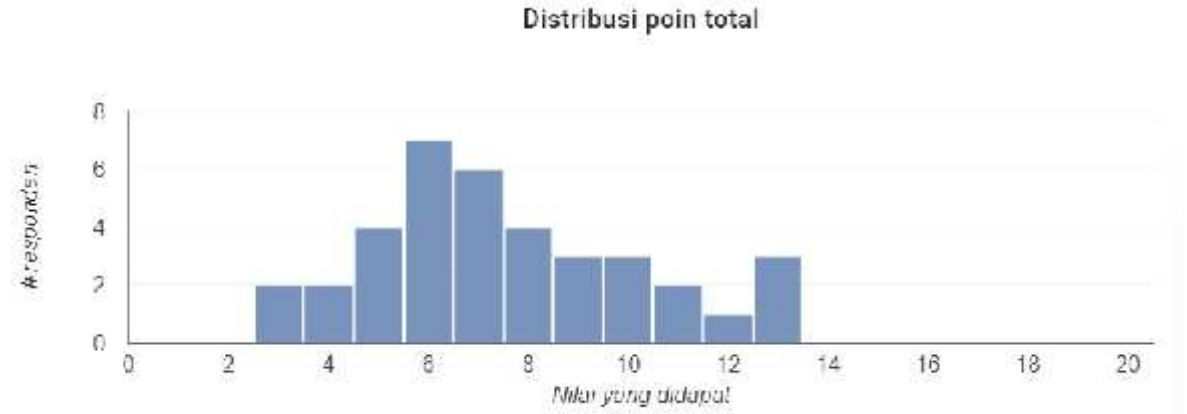

Figure 1. Distributed Total Points

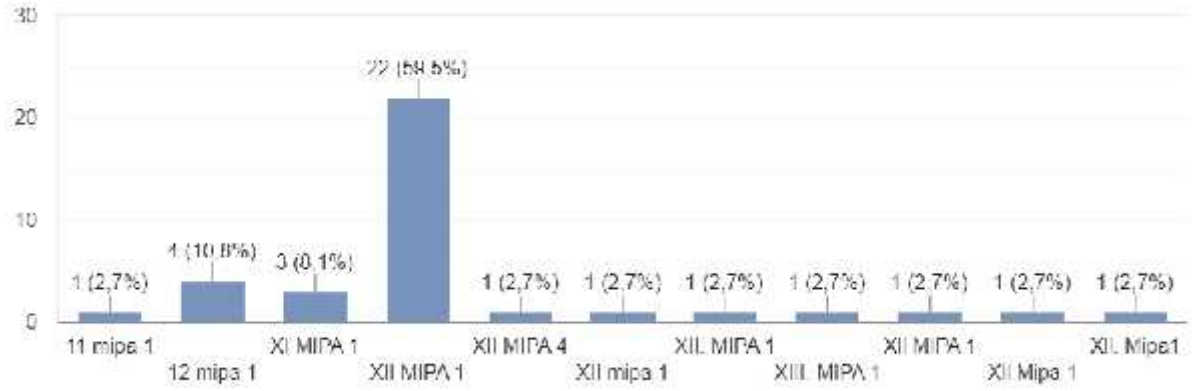

Figure 2. Percentage of Class Answers from Pre-test

The increase in the posttest intervention group's average score demonstrates that the reasoning training program delivers tangible benefits in preparing students for the UTBK

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Test. Students who adhere to the training program have an edge when answering issues that need logical and analytical thinking.

Furthermore, positive reactions from participants and schools demonstrated that reasoning training programs were well received. Students' active participation in training activities demonstrates a high degree of engagement, demonstrating that the program is successful in creating a supportive and encouraging learning environment for students.Although the results of this investigation suggest that the Retribution Training Program was successfully implemented, it should be noted that this community services has significant limitations. First, because the quaternary experiment was designed with a single control group, no comparison group can guarantee that the difference in findings is due to the training program. Second, restricted training time may limit intervention coverage and intensity.

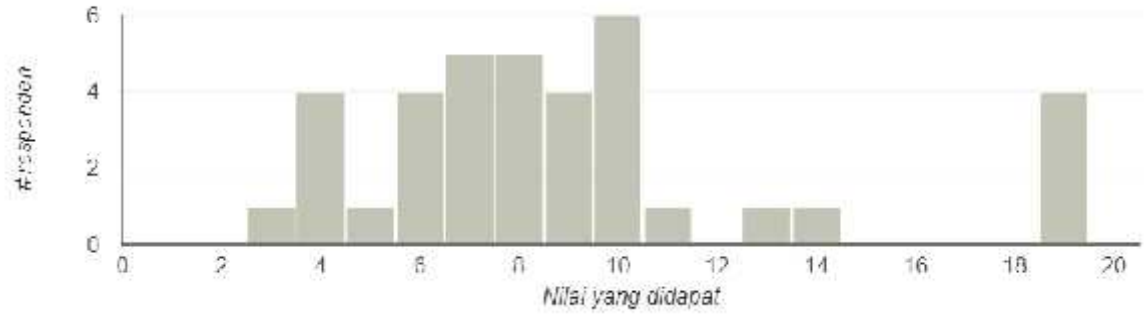

Figure 3. Distributed Total Points

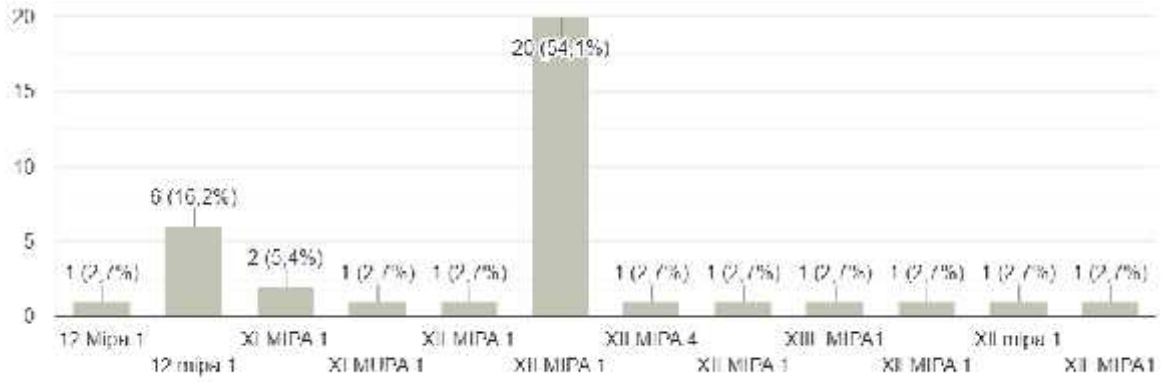

Figure 4. Percentage of Class Answers from Post-test

However, the success of this Training Program demonstrates that efforts to develop student reasoning skills in SMAN 1 Parepare have a beneficial influence on the UTBK Test results. This dedication's outcomes and findings are expected to give significant information for schools, educators, and policymakers considering the deployment of similar initiatives to boost student preparation for college admission exams.

Conclusion

The purpose of this study conclusion is to analyze and evaluate the execution of the Reasoning Training Program for computer-based written test (UTBK) optimization in SMAN 1 Parepare. According to the community services findings, the reasoning training program

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has a positive impact on students' reasoning skills and UTBK Test outcomes. The following conclusions can be reached based on the findings and outcomes:

1) The reasoning training program applied in SMAN 1 Parepare has proven effective in improving student reasoning skills. Through various activities such as the application of reasoning strategies, structured UTBK training, group discussion, and reflection, students experience enhanced critical and analytical thinking skills. Improved UTBK Test Results: Participants who follow the reasoning training program successfully improve their UTBQ Test results. The average score of the intervention group on the posttest showed a significant improvement compared to their pre-test scores, indicating that the program contributed to optimizing student preparation for the exam.
2) Positive responses from students and faculty indicate a positive attitude toward the penalty program. The benefit of this course is that it helps students better understand themselves and improves their critical thinking skills. In addition, active participation of students in training activities increases enthusiasm and libido.
3) This reasoning training program reveals that increased student reasoning skills have a direct impact on their preparedness for the UTBK Test. Students that thrive at logical and analytical thinking perform better on tests. Although this study has made a substantial contribution to enhancing student preparation for the UTBK Test at SMAN 1 Parepare, some limitations must be acknowledged. The design of quarantine trials with a single control group may limit the generalization of results, and the short time of training may alter the coverage and intensity of interventions.

Recommendation

This community service program recommends that the utilization of Reasoning skills should be improved by more mathematics teachers as it could increase student reasoning skills and enhance student preparation for the UTBK Test. And for school principal should ensure the integration of reasoning training programs into the school curriculum.

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