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Does Guided Inquiry Affect Life Skills? A Post-Covid19 Pandemic Experimental Study

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Abstract. The 21st-century education is known as the age of knowledge (*knowledge age*), characterized by an accelerated increase in knowledge. The demand for mastery of various skills is also one of the characteristics of education today. One of the skills in the spotlight is life skills. The research objective was to determine the effect of guided inquiry on students' life skills. This research is quantitative, like *an experimental* design, nonequivalent *pretest-posttest control group.* The subjects of this study were students of class X IPA B and X IPA C MA Miftahul Ulum Bettet Pamekasan Madura in the even semester of 2021/2022. The academic life skills (thinking skills) rubric is used to obtain life skills data through a written test in the form of an essay. This study's results indicate no effect of guided inquiry on students' life skills. Life skills still need to be empowered students in learning to support student learning outcomes and the future. The guided inquiry remains a recommended learning model to empower life skills. Researchers need to consider students' readiness for research, especially study habits, and teachers or researchers should master the learning model used before conducting research.

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INTRODUCTION

Global Human Capital Report explained that Indonesia's ranking in education was in the 65th position out of 130 countries, which indicated that Indonesia was still far behind other ASEAN countries. For example, Singapore was in the 12th position, Malaysia was in the 33rd position, Thailand was in the 40th position, and the Philippines was in the 50th position (Sodiman, 2014). In this regard, schools are the main component in the learning process, and many schools in Indonesia still need to meet the qualifications of national education standards. So, this nation still needs to be more optimal in its commitment to realizing quality and fair education implementation. The stigma that arises in the community is that there are differences in the quality of schools, so inequality always occurs. If left unchecked, it will affect the authority of State education (Naggala, 2020).

Observations made on Tuesday, 14 December 2021, at MA Miftahul Ulum Bettet Pamekasan Class X IPA showed that the implementation of learning still tends to be conventional, dominated by the talk. During the learning process, students tend to focus on aspects of remembering, which is low order of thinking. The second observation made on

Vol. 1, No. 1 (May, 2025)
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pp.16-22

Wednesday, 27 December 2021, also shows that learning activities have not accustomed students to set their own learning goals, have not empowered group activities to respect each other's opinions, and have not been accustomed to managing their learning. This condition indicates that the learning process pays less attention to aspects of life skills.

The facts above indicate that life skills need to be empowered students. Life skills are abilities, skills and abilities that students need to face and carry out in real life. In other words, life skills are related to how a person can activate and mobilize all positive values and competencies that are maximally implemented to maintain daily life (Mislaini, 2017). Life skills possessed by students are influenced by many things, including factors that come from within the student, for example, student learning motivation, student learning activities, and factors that come from outside the student (environment) (Kiswoyowati, 2011). Life skills consist of generic life skills and specific life skills. Generic life skills are defined as skills that every human being must possess. These skills consist of personal and social skills. Meanwhile, specific life skills are needed to deal with problems in specific areas, such as certain jobs, activities or situations. These skills consist of academic and vocational skills (Puskur, 2007).

Life skills greatly benefit students, especially as provisions in overcoming various life and living problems (Marwiyah, 2012). In addition, students, as the next generation, must be able to solve various problems that will be faced, get used to and let go of dependence on other parties in overcoming challenges and difficulties. In addition, students must get used to taking the initiative and going first. This initiative is the first step towards the creative, innovative, improvisational, and productive ladder (Syam et al., 2016).

Empowerment of life skills will be maximized by applying specific learning models. One of the lessons that can be used is guided inquiry. Guided inquiry is a learning model in which the teacher provides broad guidance or instructions to students. The steps of guided inquiry learning are: 1) presenting problems, 2) making hypotheses, 3) designing experiments, 4) conducting experiments, 5) collecting data and analyzing data, 6) as well as providing conclusions and communicating (Trianto, 2007). Guided inquiry demands teacher activity not only to transfer knowledge but become a facilitator, guides and directs students to find their concepts so that in guided inquiry learning, students are encouraged to be more active in learning (Nurdyansyah & Fahyuni, 2016). The main objective of guided inquiry learning is to develop students' attitudes and skills to become independent problem solvers. In addition, guided inquiry helps students develop the discipline and intellectual skills to generate problems and then be able to find answers on their own.

Previous research revealed that guided inquiry affects life skills (Sucilestari, 2018). Research that uncovers students' life skills through implementing the guided inquiry model during the Covid 19 era has yet to be carried out much. Therefore, this research is important to determine the impact of guided inquiry learning on students' life skills.

RESEARCH METHODS

This research is quantitative research with a quasi-experimental research design (like an experiment) by design of a nonequivalent pretest-posttest control group (Hastjarjo,

Vol. 1, No. 1 (May, 2025)
E-ISSN: xxxx-xxxx
pp.16-22

2019)(Table 1). The subjects of this study were students of class X IPA B and class X IPA C at MA Miftahul Ulum Bettet Pamekasan, even semester of the 2021/2022 academic year. Class X IPA B was the control class, with 22 students, while X IPA C was an experimental class, with 23 students. Sampling was done by random technique sampling.

Life skills data was obtained through a written test as an essay measured using the life skills rubric adapted from Octaviani (2019), which focuses on academic life skills (thinking skills). Indicators in the Life Skills rubric in this study include 1) skills in exploring and finding answers, 2) skills in processing answers and making decisions, 3) accuracy in solving problems wisely and creatively, and 4) skills in answering independently. Test results prowess survival was then analyzed using non-parametric statistics (Wu et al., 2017) through testsQuade's Rank with the help of SPSS 28.00 for Windows.

Table 1. Research design

Group	Pretest	Treatment	Posttest
X IPA C	O1	Guided inquiry	O2
X IPA B	O3	conventional	O4

RESULTS AND DISCUSSION

Data Description

The research data were obtained from sample class data, namely class X IPA Miftahul Ulum Bettet Pamekasan, with 45 students. The number of students in the control class was 22. In contrast, in the experimental class, there were 23 students. The mean score of students' life skills in the control class was 10.81, while in the experimental class, it was 10.78. Details can be seen in Table 1.

Table 1. Data Description

Class	Mean	Std. Deviation	N
Guided Inquiry	10.7826	2.19414	
Conventional	10.8182	1.91824	22
Total	10.8000	2.04050	45

Assumption Test Results

1) Normality Test

The normality test stage in research uses a significance level of 0.05. Test for normality using the testKolmogorov-SmirnovwithSPSS 28.0 for Windows. A summary of the data normality test results can be seen in Table 2.

Based on the normality test results, Table 2 shows the value significance of 0.000 <0.05, which means that the data distribution on life skills results is not normally distributed.

Table 2. Normality Test Results for Life Skills Data

	Kolmogorov-Smirnov[a]		
	Statistic	df	Say.
Residual for YLS	.203	45	.000

2) Homogeneity Test

A homogeneity test is carried out to investigate whether or not the homogeneity of the variant or group is fulfilled. The results homogeneity of life skills data can be seen in Table 3.

Table 3. Results of Life Skills Data Homogeneity Test

F	df1	df2	Say.
.042	1	43	.838

Table 3 shows that the significance of Life Skills is 0.838 (p>0.05), which means that the life skills variable has the same variance (homogeneous).

3) Test the Slope of the Regression Line Between the Covariates and the Dependent Variable

Test the assumption of the slope of the intermediate regression line covariance with variables bound to both classes can be seen in Figure 1. This test uses a scatter plot which shows that the two lines show different directions. These results confirm that the assumption test of the slope of the intermediate regression line covariance with variable bound in both classes is not met. This test is satisfied if the slope or the slope of the regression line between the covariates and the dependent variable is the same in all data groups. In addition, the regression lines for each group must be parallel to each other. In this study, this assumption was not fulfilled.

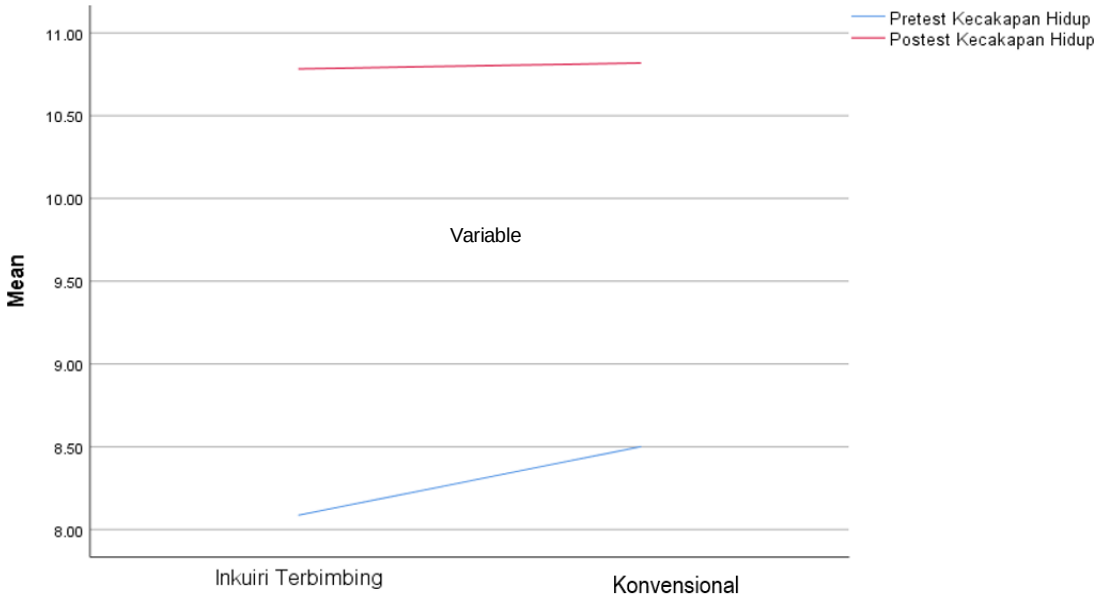

Figure 1. Regression Lines between Covariates and Dependent Variables

Vol. 1, No. 1 (May, 2025)
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pp.16-22

4) Hypothesis Test

The prerequisite test shows that the data is not distributed normally and is homogeneous, so the ANCOVA hypothesis test cannot be used. Therefore, the hypothesis test in this study uses the test Quade's Rank. The results of hypothesis testing can be seen in Table 4.

Table 4 Hypothesis Test Results

	Sum of Squares	df	Mean Square	F	Say.
Between Groups	14.334	1	14.334	.096	.758
Within Groups	6398.067	43	148.792		
Total	6412.402	44			

Table 4 shows an F value of 0.096 and a significance of 0.758 ($p > 0.05$), meaning the guided inquiry learning model has no significant effect on students' life skills. These results also indicate that there is no difference in the life skills of students in the control class from the life skills of students in the experimental class.

The results of the research hypothesis test showed a significance value of 0.758> 0.05. These results indicate that the null hypothesis is accepted and the research hypothesis is rejected, which means there is no effect of guided inquiry on the life skills of class X IPA MA Miftahul Ulum Bettet Pamekasan students. In other words, the life skills of students in classes taught by conventional learning are the same as those taught by guided inquiry.

Life skills possessed by students are influenced by many factors, including factors originating from within the student, for example, student learning motivation, student learning activities, and factors that come from outside the student (environment), as well as student learning facilities and facilities infrastructure (Kiswoyowati, 2011). Meanwhile, MA Miftahul Ulum Bettet Pamekasan is a boarding school where the empowerment of life skills using the guided inquiry model collides with the learning habits of students unfamiliar with scientific learning models such as inquiry. Completing the guided inquiry syntax in full requires a relatively long time. It follows the opinion that learning with guided inquiry tends to take longer to complete the syntax because students need additional time to plan experiments and conduct experiments (Ural, 2016).

In addition to student readiness, teacher readiness in teaching is also important to learning success. In other words, teachers who will empower life skills must first have good life skills. Recent research reveals that positive conditions will also produce positive results so that teachers and student-teacher candidates with life skills can better apply teaching skills well in learning. It is proven that an increase in life skills is followed by an increase in teaching skills (Antika et al., 2022).

This study reveals no effect of guided inquiry on students' life skills, but this variable is still important to cultivate and develop in students.

Vol. 1, No. 1 (May, 2025)
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pp.16-22

CONCLUSIONS

This study revealed no effect of guided inquiry on students' life skills. It relates to students' internal factors and learning habits who need to become more familiar with guided inquiry learning. Based on the results obtained, the suggestions are as follows. 1) Researchers should consider students' readiness for research, especially study habits; 2) teachers or researchers should master the learning model used; 3) other researchers can conduct similar research considering the limitations of this study.

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Vol. 1, No. 1 (May, 2025)
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