



## IMPLEMENTATION AND EFFECTIVENESS OF QUANTITATIVE RESEARCH METHODS IN ISLAMIC RELIGIOUS EDUCATION

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### Abstract:

*This study aims to analyze the implementation and effectiveness of quantitative research methods in the field of Islamic Religious Education (PAI). Quantitative research methods have been widely used to evaluate the learning process, curriculum effectiveness, and factors that influence PAI learning achievement. This article discusses the advantages, limitations, and recommendations for the application of this method in the context of PAI. The results show that quantitative research methods provide strong empirical data to support decision making in education. A descriptive analytical approach is used to analyze various literature that discusses the application of quantitative methods in the context of Islamic religious education. The research results show that this method is superior in producing measurable, accurate and generalizable data. Other advantages include the ability to systematically test hypotheses through statistical analysis. However, its limitations lie in its reliance on basic assumptions and lack of flexibility in understanding complex and dynamic phenomena. In the context of Islamic religious education, quantitative methods are very relevant for evaluating data-based policies and increasing the effectiveness of the learning process. This research recommends integrating quantitative methods with qualitative approaches to enrich understanding and provide more holistic results.*

**Keywords:** Quantitative research, Islamic Education, Effectiveness of Method.

### Abstrak:

Penelitian ini bertujuan untuk menganalisis implementasi dan efektivitas metode penelitian kuantitatif dalam bidang Pendidikan Agama Islam (PAI). Metode penelitian kuantitatif telah digunakan secara luas untuk mengevaluasi proses pembelajaran, efektivitas kurikulum, serta faktor-faktor yang memengaruhi pencapaian pembelajaran PAI. Artikel ini membahas keunggulan, keterbatasan, serta rekomendasi untuk penerapan metode ini dalam konteks PAI. Hasil menunjukkan bahwa metode penelitian kuantitatif memberikan data empiris yang kuat untuk mendukung pengambilan keputusan dalam pendidikan. Pendekatan deskriptif analitis digunakan untuk menganalisis berbagai literatur yang membahas penerapan metode kuantitatif dalam konteks pendidikan agama Islam. Hasil penelitian menunjukkan bahwa metode ini unggul dalam menghasilkan data yang terukur, akurat, dan dapat digeneralisasi. Keunggulan lain termasuk kemampuan untuk menguji hipotesis secara sistematis melalui analisis statistik. Namun, keterbatasannya terletak pada ketergantungan terhadap asumsi dasar dan kurangnya fleksibilitas dalam memahami fenomena yang kompleks dan dinamis. Dalam konteks pendidikan agama Islam, metode kuantitatif sangat relevan untuk mengevaluasi kebijakan berbasis data dan meningkatkan efektivitas proses pembelajaran. Penelitian ini merekomendasikan integrasi metode kuantitatif dengan pendekatan kualitatif untuk memperkaya pemahaman dan memberikan hasil yang lebih holistik.



**Kata Kunci:** Penelitian kuantitatif, Pendidikan Agama Islam, Efektivitas Metode

## **INTRODUCTION**

Quantitative research methods are one of the main approaches in scientific research that focus on measuring and analyzing numerical data. In the context of Islamic Religious Education (PAI), this method is often used to evaluate program effectiveness, measure student learning outcomes, and identify variables that influence the achievement of religious education goals. (Creswell, 2021)

Islamic Religious Education has an important role in shaping the character and morals of students. Therefore, a research approach is needed that is able to provide valid and reliable data to support the development of curriculum and teaching methods. Quantitative methods offer a solution to answer this need through systematic data collection and accurate statistical analysis. Quantitative research methods are based on the positivist paradigm which emphasizes validity, reliability, and objectivity. (Sugiyono 2021)

However, the implementation of this method often faces challenges, such as teachers' lack of understanding of statistical analysis techniques and limited access to supporting software. This study seeks to provide an in-depth overview of how quantitative methods can be implemented effectively in PAI, as well as identifying factors that support and hinder its use.

In Islamic Religious Education, this method can be used for: 1. Evaluating the success of the curriculum through statistical analysis of student learning outcomes. 2. Assessing the relationship between teaching methods and learning outcomes. 3. Knowing the influence of variables such as family environment, motivation, and learning media on student achievement. (Arikunto, 2021)

## **RESEARCH METHOD**

This study uses a descriptive quantitative approach with data obtained through surveys, questionnaires, and documentation studies. The research sample was students and Islamic Religious Education teachers in several junior high schools in Indonesia. Data analysis was carried out using SPSS statistical software to test hypotheses and draw conclusions based on existing data. (Notoatmodjo, 2021)

## **FINDINGS AND DISCUSSION**

### **Application of Quantitative Methods**

Most Islamic Religious Education teachers use quantitative methods to evaluate learning success, but their application is still limited to analyzing student test results data. This method is used to identify learning trends and patterns and evaluate student achievement levels based on certain success indicators.

In the context of PAI, several studies have shown how quantitative methods can be implemented effectively. For example, research by Rahma Sarah (2021) shows that online PAI learning during the COVID-19 pandemic was considered

less effective based on data analysis from questionnaires distributed to students. The results show that most students feel less involved in the learning process.

Quantitative research methods in Islamic religious education are generally used to measure the effectiveness of learning, increase student motivation, and identify factors that contribute to the success of religious education. Several studies have shown that the use of surveys and questionnaires to collect quantitative data provides more valid results in assessing the results of Islamic religious learning (Sudarsono, 2021).

For example, in a study conducted by Hadi (2021), the influence of technology-based learning methods on students' understanding of Islamic religious material was measured using quantitative instruments. The results of the study showed a significant increase in students' understanding after using this learning method.

The aim of Quantitative Research is to develop and use models mathematical models, theories and hypotheses associated with natural phenomena. Quantitative research is widely used to test a theory, to present a fact or describing a statistic, to show a relationship between variables, and some are concept-developing, developing understanding or describing many things, both in the natural sciences and many things, both in the natural sciences and social sciences. (Muri Yusuf, 2014)

Quantitative research methods can be interpreted as research methods based on the philosophy of positivism, used to research 5 specific populations or samples, random, data collection using research instruments, quantitative/statistical data analysis with the aim of testing the established hypothesis.

### **Islamic Education**

Islamic education is education that is taught and developed based on the basic teachings of Islam which originate from Al-Qur'an and al-Hadith. The main teachings are a guide to life for Muslims, so that they can be safe in this world and in the afterlife. With words another, that the Qur'an and al-Hadith are sources of reference for the life of every Muslim in all aspects of life, whether relating to Allah SWT or relations between fellow Muslims and the Ummah other humans (Khair, 2022)

Scope is an explanation of a limitation the subject in a problem. Scope of education Islam is a limitation of discussion or internal focus teaching Islamic religious education. Islamic religious education. The scope of Islamic religious education according to (Zulkifli, 2023) includes: 1. Faith is something that requires the heart to confirm and has an impact on the peace of the soul and inner peace and can keep one away from doubt. 2. Sharia, which is a normative value that regulates the relationship between creatures and God through worship and the relationship between humans and the universe. Sharia law contains obligatory, sunnah, mubah, makruh laws. 3. morality, namely the power of a person's soul that drives or motivates him to do things without thinking first. There are several scopes in morality, including: morality towards Allah SWT, morality towards fellow human beings and morality towards the universe.

Islamic Religious Education is one of the three subjects that must be included in the curriculum of every formal educational institution in Indonesia. Islamic Religious Education is expected to be able to realize the dimensions of religious life so that together with other educational subjects, it is able to realize a complete individual personality in line with the nation's outlook on life.

This Religious Education is the basis of other scientific learning, which will lead to the formation of children with high personality, religion and knowledge. So it is true to say that the implementation of Islamic education in schools is the main pillar of character education. Religious education teaches the importance of instilling morals based on religious awareness in children (Syaifuluddin, Agus 2018).

### **Effectiveness of Method**

Data shows that quantitative research methods are able to provide significant information for improving curriculum and teaching methods. For example, a positive relationship was found between the use of digital media in Islamic Religious Education learning and increased student learning outcomes (Creswell, 2021). In addition, this method allows for more accurate measurement of the achievement of basic competencies and learning objectives.

Furthermore, this study revealed that teachers who are skilled in using statistical software are able to identify weaknesses in the learning process and provide more targeted solutions. This shows the importance of intensive training to improve teachers' skills in quantitative data analysis. The results of the study also found that the use of statistical data helps teachers in designing more effective and efficient learning strategies.

Effectiveness is basically the success of goals what you want to achieve. Goals or facilities and can also provide its influence on the goals to be achieved. It is said to be effective if there is an increase in mathematical problem solving abilities according to John Dewey's theory before and after it is given treatment. (Rianto, dkk, 2017)

Some of the obstacles found included teachers' limited understanding of statistical analysis and lack of access to statistical software in schools (Sugiyono, 2021). In addition, limited time to conduct data analysis is also a challenge for Islamic Religious Education teachers who have a busy teaching schedule. Another obstacle is the lack of institutional support for training and developing teachers' technical skills.

Although quantitative methods are effective in providing numerical data, some aspects such as the influence of spiritual values and character formation of students are better explored through a qualitative approach. The combination of these two methods can produce a more comprehensive understanding of the effectiveness of the PAI program.

This study also notes that the use of quantitative methods must be adjusted to the specific needs of PAI. The combination with qualitative methods can provide deeper insights into spiritual and moral aspects that are often difficult to measure quantitatively.

The effectiveness of quantitative research in Islamic religious education can be seen from its ability to reveal causal relationships between various factors. For example, Mulyani's (2021) research shows that student motivation affects their success in Islamic religious studies. By using a quantitative approach, Mulyani managed to identify factors that can increase student motivation, such as parental support and the use of interesting learning methods.

However, there are obstacles in implementing quantitative methods in the field, such as limited time and resources to conduct extensive surveys, as well as difficulties in ensuring the accuracy of the data obtained (Aziz, 2021).

## **CONCLUSION**

Quantitative research has proven to be an effective method in measuring, analyzing, and describing phenomena in Islamic religious education. In the context of Islamic religious education, this method allows researchers to collect more structured data, such as numerical or statistical data, which can be analyzed to identify relationships, patterns, and trends that exist in the practice of Islamic religious education in various educational institutions.

The implementation of quantitative research methods in Islamic religious education shows several advantages, such as the ease of generalizing research results to a wider population, as well as providing strong empirical evidence regarding various aspects of religious education, including the influence of external factors on students' understanding and religious practices. For example, through surveys or questionnaires, researchers can measure students' level of knowledge of religious material, as well as identify factors that influence this understanding, such as teaching methods, motivation, or available educational facilities.

However, the effectiveness of quantitative methods in Islamic religious education also has limitations. One of them is the dependence on numerical data, which may not fully reflect the depth of students' understanding and subjective experiences in learning Islam. This method tends to ignore qualitative aspects that are very important in religious education, such as moral values, spirituality, and personal experiences in practicing religious teachings. Therefore, although quantitative methods can provide a clear and measurable picture, this approach needs to be combined with qualitative methods to provide a more holistic understanding of Islamic religious education.

Overall, the application of quantitative research methods in Islamic religious education provides an important contribution to the development of educational policies and the implementation of teaching. Although there are some limitations in terms of depth of understanding, the application of this method is still effective in providing data that can be used to design better policies, launch educational programs, and identify factors that influence student learning outcomes. Therefore, the integration of quantitative methods with other approaches, such as qualitative, will provide more comprehensive results in Islamic religious education research.

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