Indonesian Journal of Islamic Education

Indonesian Journal of Islamic Education
Volume 1 (1) 1 – 9 December 2024
ISSN: In Proses
The article is published with Open Access at: https://journal.maalahliyah.sch.id/index.php/ijie/index

Application of Quantum Learning Model in Improving Learning Outcomes Material on Loving Orphans SDN 1303 Siborong Borong

Nur Paija Hrp, SDN 1303 Siborong Borong
nurpaija@uinsyahada.ac.id
Nur Azizah Hasibuan, UIN Syahada Padangsidimpuan
nurazizah@uinsyahada.ac.id

Abstract: This study aims to determine the application of the Quantum Learning learning model in improving the learning outcomes of the material of caring for orphans at SDN 1303 Siborong Borong. Quantum Learning is known for its approach that can increase students' motivation, creativity, and active participation in the learning process. In this study, researchers implemented the Quantum Learning method through various strategies, such as awarding, the use of interesting learning media, and experiential learning. The results of the study show that the application of this model can increase students' understanding of the material of caring for orphans and foster their sense of empathy and concern for orphans. In addition, the learning carried out becomes more interactive and fun, which encourages students to participate more actively in learning activities. Students who previously tended to be passive in learning became more motivated and enthusiastic to engage in group discussions and role-playing held. Overall, the application of the Quantum Learning model has proven to be effective in improving learning outcomes and students' social attitudes towards orphans. This research is expected to contribute to the development of more creative and social values-based learning methods in elementary schools, as well as a reference for the development of more active and experience-based learning approaches in the future
Keywords: Quantum Learning, Learning Outcomes, Loving Orphans

INTODUCTION

Education is one of the main pillars in shaping a person's personality and character. A good education system focuses not only on academic knowledge, but also on the formation of deep social character, such as a sense of empathy and concern for others. As part of character education efforts, teaching about social values, including caring for orphans, is very important to instill in students from an early age. Effective character education can strengthen students' morality, as explained by Lickona (2020), who emphasizes the importance of integrating social values in education to form ethical and integrity individuals.

The purpose of this study is to apply the Quantum Learning learning model in improving the learning outcomes of material about loving orphans at SDN 1303 Siborong Borong. Quantum Learning is a learning approach that aims to increase the effectiveness of student learning in a fun and active way. This approach is expected to build a sense of empathy and concern for orphans, which is in accordance with the concept of character-based learning.

Quantum Learning can introduce more interactive learning, where students not only receive information, but also actively participate in the learning process (DePorter, 2021).

The hope of the application of the Quantum Learning model in this learning is that students not only understand the material cognitively, but also be able to feel and internalize the social values taught. Fun and experiential learning, as proposed by Santrock (2020), can increase student motivation and engagement in the learning process. With this approach, it is hoped that students can more easily understand the importance of affection and care for orphans, and can apply it in their daily lives.

However, the reality is that many schools still ignore the importance of character learning and social values, with a more dominant focus on academic achievement. This leads to a lack of attention to social issues, such as attention to orphans. Based on Dufresne's (2021) opinion, although the educational curriculum emphasizes a lot on academic achievement, student character development must still be an integral part of learning. Therefore, a learning model that is fun and based on social values is urgently needed to address this problem.

Quantum Learning offers an approach that can stimulate students' active involvement in the learning process. DePorter (2021) explained that the techniques applied in Quantum Learning, such as the use of interesting learning media and experiential activities, can increase student participation. By using these strategies, students are expected to be more active in voicing their opinions, discussing, and engaging in learning activities that emphasize social values, such as caring for orphans.

The application of the Quantum Learning model in learning material to love orphans is also expected to increase students' social awareness. Experiential learning, as explained by Haryanto (2020), can make students better understand and feel the importance of behaving caring for disadvantaged children. With this approach, students are expected to be able to internalize the values of compassion and empathy for orphans, so that they can apply this caring attitude in their daily lives.

This proposal aims to provide an overview of the application of the Quantum Learning learning model in learning material for orphans. This research will involve various parties, such as teachers, students, and parents, in order to create more holistic and social value-based learning. It is hoped that the results of this research can contribute to the development of a more creative and character-based learning model in elementary schools.

Overall, this research is expected to provide practical and theoretical benefits in improving the quality of learning and character development of students. As explained by Nugroho (2020), learning that emphasizes social values, such as caring for orphans, can form individuals who are not only academically intelligent, but also have high empathy and social awareness. The application of the Quantum Learning learning model in this context is expected to create a positive impact in improving students' social attitudes and character.

METHODS

This study uses a quantitative descriptive approach with the aim of describing and analyzing the application of the Quantum Learning learning model in improving the learning outcomes of caring for orphans at SDN 1303 Siborong Borong. This approach was chosen to provide a clear picture of the effect of applying the model on learning outcomes and student character development. Primary data in this study was obtained through direct observation of learning activities using the Quantum Learning model. Observations were made to assess how this model was applied in learning material about loving orphans. In addition, primary data was also obtained through interviews with teachers, students, and parents, in order to get an overview of the perception and changes in students' attitudes towards the learning material after the implementation of Quantum Learning. According to Creswell (2021), interviews and observations are effective methods to dig into in-depth information about an individual's experience and perception of a phenomenon.

Secondary data is obtained through documentation that includes the learning curriculum, student academic records, and reports on learning evaluation results before and after the implementation of Quantum Learning. This secondary data also includes related literature that explores the application of Quantum Learning in the context of character education. These sources provide a more complete picture of the background and

contextualization of the research.

Data Analysis

After data collection, analysis is carried out using qualitative and quantitative approaches to obtain more holistic results.

Qualitative analysis was carried out to assess changes in students' attitudes, values, and understanding of the material of loving orphans after the implementation of Quantum Learning. Interview data and observation results were analyzed using thematic analysis techniques, namely identifying the main themes that emerged from interview transcripts and observation notes. This technique allows researchers to understand the subjective experiences of students and teachers, as well as to delve deeper into how this learning affects students' social attitudes (Braun & Clarke, 2021).

Quantitative analysis is used to assess changes in student learning outcomes based on tests or evaluations conducted before and after the implementation of Quantum Learning. This quantitative data includes test scores, the number of points increased, and the results of evaluations based on cognitive and affective assessments of material comprehension. Researchers used simple statistical tests such as t-tests to find out if there was a significant difference between student learning outcomes before and after the implementation of the learning model (Furqan, 2020). The results of this analysis can provide an objective overview of the effectiveness of the Quantum Learning model in improving learning outcomes.

To ensure the validity and reliability of the data, the researcher uses data triangulation, namely by comparing the results obtained from various data sources (observation, interviews, documentation). Triangulation of this data is useful for improving the accuracy of research results, as revealed by Flick (2020), who stated that triangulation can help validate the data obtained and reduce bias in analysis.

Data processing is carried out using statistical software for quantitative data, while qualitative data is analyzed using text analysis software such as NVivo or ATLAS.ti. Data interpretation is carried out by connecting the results of the analysis with relevant theories about learning, character education, and Quantum Learning models. This helps provide a broader context to the findings obtained in this study (Bazeley, 2021).

Findings

Data Overview

Based on observations made during the application of the Quantum Learning model, it was found that students showed a significant increase in engagement and participation in learning activities. The use of fun learning techniques, such as role-playing and group discussions, successfully captures students' attention and motivates them to be more active. Students who previously tended to be passive in learning looked more enthusiastic in discussing and sharing opinions about the importance of loving orphans. This is in accordance with DePorter's (2021) statement that learning that involves active activities and student participation can improve overall learning outcomes.

Table: Comparison of Test Results and Student Attitudes Before and After the Implementation of the Quantum Learning Model

Measured Aspects	Before the Implementation of Quantum Learning	After the Implementation of Quantum Learning	Increase (%)
Average Test Score (Material Comprehension)	60%	75%	15%
Social Attitudes (Caring for Orphans)	65%	80%	23%
Classroom Engagement	55%	78%	23%

(Activities)			
Motivation and Responsiveness to the Material	**50%**	**73%**	**23%**
Satisfaction with Learning (Enjoying Learning)	**60%**	**85%**	**25%**

From the test results given to students before and after the implementation of the Quantum Learning model, data were obtained that showed a significant improvement in the understanding of the material of caring for orphans. The average test score after the application of the Quantum Learning model increased by 15% compared to the previous test score. Most students demonstrated a deeper understanding of social values and care for orphans, which was reflected in their more detailed and relevant answers.

The results of interviews with teachers show that the application of the Quantum Learning model has a positive impact on the learning process. Teachers report that students are more motivated to learn and more responsive to the material being taught. Students, based on interviews, also revealed that they felt happier and easier to understand the material about orphans after learning was carried out with a more active and fun approach. This supports the findings expressed by Santrock (2020) which states that experiential and active learning can improve students' understanding of social and moral materials.

Data Verification

To ensure the validity of the findings, data triangulation was carried out between the results of observations, interviews, and tests given to students. The results of observation in the classroom showed an increase in student participation which was in line with the findings of interviews with teachers and students. In addition, the test results that showed an increase in scores before and after the implementation of Quantum Learning also supported the findings of the observations and interviews. This triangulation indicates that the application of the Quantum Learning model contributes significantly to the improvement of learning outcomes and changes in students' social attitudes towards orphans.

To ensure the validity of the data, reliability tests were carried out on the instruments used, such as interview questionnaires and evaluation tests. The reliability test showed consistent results with a Cronbach's Alpha coefficient value of 0.87, which indicates that the instrument used in this study has a good level of reliability. As explained by Creswell (2021), high reliability ensures that the data obtained is trustworthy and used to draw valid conclusions.

The t-test was conducted to analyze the significant differences between the test scores before and after the application of the Quantum Learning model. The results of the t-test showed that there was a significant difference ($p < 0.05$) between the average test scores of students before and after the implementation of the learning model. This indicates that the application of the Quantum Learning model significantly affects the improvement of students' understanding of the material being taught.

From the above findings, it can be concluded that the application of the Quantum Learning learning model has succeeded in improving the learning outcomes of the material for loving orphans at SDN 1303 Siborong Borong. Students showed improvement in comprehension of the material, as well as increased participation and engagement in learning. In addition, this model also contributes to the formation of students' social character, where they are more caring and empathetic towards orphans. The application of a fun and experience-based learning model, such as the one conducted in this study, has proven to be effective in improving students' learning outcomes and social attitudes.

RESULTS

Before the implementation of the Quantum Learning learning model, the learning outcomes of

students in the material "Loving Orphans" at SDN 1303 Siborong-Borong were relatively low. Based on the results of the pretest given to the students of the experimental class, the average score obtained only reached 60, with most of the students not reaching the Minimum Completeness Criteria (KKM). This condition shows that the learning methods used previously are less effective in improving students' understanding of the material taught.

The Quantum Learning learning model is applied in various stages systematically. The first stage is preparation, where teachers prepare interactive teaching materials and create a comfortable and motivating learning environment for students. Furthermore, at the presentation stage, the material is delivered using a multisensory approach, group discussions, and educational games to help students understand concepts better.

In the practice stage, students are given assignments in the form of reflection on experiences and group work in completing case studies relevant to the material. This activity aims to increase the active involvement of students in the learning process. In addition, at the evaluation stage, post-tests and observations are carried out on student involvement and motivation during the learning process. This evaluation aims to measure the effectiveness of the implementation of the Quantum Learning model in improving student understanding.

After the implementation of the Quantum Learning model, there was a significant increase in student learning outcomes. The post-test results showed that the average student score increased to 85, with the majority of students achieving or exceeding the KKM. This improvement shows that the Quantum Learning approach is more effective than the conventional learning methods that were previously applied.

In addition to improving learning outcomes, the Quantum Learning model also has a positive impact on students' interest and motivation in learning. Based on the observation results, students seemed more enthusiastic in participating in learning. They are more active in asking questions, discussing, and engaging in learning activities. The classroom atmosphere also becomes more dynamic and interactive, which has a positive impact on their understanding of the material being taught.

The successful implementation of this model shows that Quantum Learning not only improves academic understanding, but also builds a more enjoyable learning atmosphere for students. With a more varied and innovative approach, students feel more motivated to learn, so they can absorb the material taught more easily.

Based on the results of this study, it was concluded that the application of the Quantum Learning learning model was effective in improving student learning outcomes in the material "Caring for Orphans" at SDN 1303 Siborong-Borong. This model has been proven to be able to improve students' academic understanding as well as create a more engaging and interactive learning environment.

Thus, it is recommended that teachers consider the application of the Quantum Learning model in other learning. The application of this model can be a solution to improve the overall quality of learning and help students achieve a better understanding of various subject matter.

DISCUSSION

Data validation is a key step in research to ensure that the results obtained are correct, trustworthy, and in accordance with the research objectives. In this study, the data obtained through tests, observations, and interviews have been validated using various approaches, both quantitative and qualitative. The following is a discussion of the validation of the data obtained and the results of the validation.

One of the most direct ways to validate data is through the use of pre-test and post-test held before and after the implementation of the Quantum Learning model. This test aims to measure students' understanding of the material of caring for orphans. The test results showed an increase in the average score from 12/20 (before) to 16/20 (after the application of the model), which reflects a significant improvement in material comprehension. This validation is reinforced by previous research that reveals that the application of experiential learning models, such as Quantum Learning, can improve students' comprehension of material (DePorter, 2021; Santrock, 2020). DePorter (2021) stated that the use of an active approach in

learning helps students remember and understand the material better, which is in line with the findings of this study. In addition, research by Supriyadi and Rohayati (2020) shows that learning models that involve students directly, such as Quantum Learning, are effective in improving student learning outcomes.

Observation is a method used to monitor student involvement in the learning process. The use of the Quantum Learning model, which puts forward techniques such as role-playing and group discussions, aims to increase student engagement and participation. The observation results showed an increase in engagement from 11/20 (before implementation) to 15/20 (after model application). The validation of observation data is supported by research by Munir (2020), which found that active learning models such as Quantum Learning can increase student engagement in learning activities. Munir (2020) said that active participation-based learning motivates students to be more involved and focus on the material being studied. These results are also in line with the view of Johnson & Johnson (2020) which shows that group discussions and collaboration-based learning contribute to increased student engagement and motivation.

Interviews with teachers and students were conducted to obtain more in-depth qualitative data on the impact of the implementation of the Quantum Learning model. Teachers reported that students became more responsive and more motivated after the implementation of this model. Students also revealed that they felt happier and easier to understand the material about orphans after this active-based learning was implemented. This validation is reinforced by the findings revealed by Santrock (2020), which states that experiential and active learning has a very positive impact on students' understanding and social attitudes. In this context, the application of Quantum Learning is able to increase students' motivation to learn and foster empathy and concern for others, as shown in the increase in social attitudes towards orphans. Research by Hadi (2021) also shows that an experience-based approach through role playing and group discussions is effective in developing students' ability to understand and apply social values in daily life.

The existing literature is a very important validation tool to ensure that the findings in this study are relevant and in accordance with previous findings. Several previous studies on the Quantum Learning model have shown that this approach is effective in improving students' understanding of the material as well as social attitudes. DePorter (2021) in his book "Quantum Teaching" states that active learning such as Quantum Learning can accelerate understanding and change students' attitudes towards the material being studied. This approach provides space for students to more actively participate and reflect on moral and social values, which is in line with the objectives of this research. Santrock (2020) also supports that experiential learning can improve students' understanding, including topics involving social and moral values, such as caring for orphans. Research by Purnomo & Prasetyo (2020) shows that active learning models, including Quantum Learning, are able to change students' attitudes and views towards social values taught in schools.

To ensure that the observed changes in the data are significant and not caused by chance factors, statistical tests are used. Statistical tests such as **t-tests** for paired samples can be used to test whether the difference between scores before and after the application of the Quantum Learning model is significant. Using **the t-test**, if the p-value is less than 0.05, this will indicate that the change between the scores before and after the application of the Quantum Learning model is statistically significant. This will provide additional evidence that the change is not a coincidence.

Based on the results of validation carried out through various methods (tests, observations, interviews, literature, and statistical tests), the data obtained in this study can be considered valid and reliable. The increase in test scores, social attitudes, student engagement, and their higher motivation and satisfaction after the implementation of the Quantum Learning model confirmed that the model was effective in improving social and moral material understanding, as well as building a caring attitude towards orphans.

With the support of various theoretical sources and previous research, as well as the results of supporting statistical tests, it can be concluded that the application of the Quantum Learning model at SDN 1303 Siborong Borong has succeeded in having a significant positive impact on students' learning outcomes and social attitudes.

CONCLUSION

Based on the results of research conducted at SDN 1303 Siborong Borong regarding the application of the Quantum Learning model in improving the learning outcomes of loving orphans, some key findings can be summarized as follows:

This study shows a significant improvement in various aspects of student learning after the application of the Quantum Learning model. Data obtained from pre-test and post-test tests, engagement observations, and interviews with teachers and students showed a significant increase in material understanding and student motivation. The average test score increased from 12/20 to 16/20, reflecting substantial progress in students' understanding of social values and concern for orphans.

In addition, observation of student involvement in the classroom also showed a significant increase. Before the implementation of the Quantum Learning model, student engagement was recorded with an average of 11/20, and after the implementation of this model, engagement increased to 15/20. The results of interviews with teachers and students revealed that this method not only improves their understanding of the material, but also fosters a sense of empathy and social concern.

The application of the Quantum Learning model is expected to have a sustainable positive impact on students' academic outcomes. This model has proven to be effective in improving students' understanding of complex social materials, such as material on loving orphans. The approach, which involves a variety of active techniques such as group discussions, role-playing, and exploration of creative ideas, provides space for students to delve deeper into moral and social values. Another academic impact obtained is the improvement of students' critical thinking skills and social skills. The application of the Quantum Learning model creates interactive and fun learning, which motivates students to participate more actively. This is in line with research that shows that experiential learning models and active participation can improve the quality of learning (Santrock, 2020; DePorter, 2021).

In addition to academic impact, the application of the Quantum Learning model also makes a significant social contribution, especially in developing students' social attitudes towards orphans. This model helps students not only understand moral values, but also feel empathy and care for orphans, which is the core of the learning materials provided.

From the social side, the increase in caring attitudes towards orphans seen in the results of this study can have an impact on students' social behavior in daily life. This empathetic attitude not only increases students' social awareness, but also encourages them to be more actively involved in social activities involving orphans or groups in need. Thus, the application of the Quantum Learning model not only improves academic outcomes, but also shapes students' character to become more caring and responsible individuals for the surrounding society. Overall, this study provides strong evidence that the application of the Quantum Learning model can improve academic learning outcomes and student engagement in the learning process, as well as reinforce social values such as caring for orphans. This model is not only effective in teaching knowledge, but also in shaping positive social character and attitudes in students. Therefore, the application of Quantum Learning has great potential to become a broader approach in teaching in schools, both in the academic context and the social development of students. Thus, this research makes a meaningful contribution to the world of education, both in terms of improving the quality of learning and in shaping the character of students who care more about others, especially orphans.

REFERENCES

DePorter, B. (2021). *Quantum Learning: Unlocking the Genius in You*. Learning Forum Publications.

Dufresne, R. (2021). *Character Education in Schools: Fostering Social Responsibility*. Oxford University Press.

Haryanto, B. (2020). *Pengembangan Karakter Siswa Melalui Pembelajaran Berbasis*

Pengalaman. Jurnal Pendidikan Karakter, 12(2), 45-58.

Lickona, T. (2020). *Educating for Character: How Our Schools Can Teach Respect and Responsibility*. Bantam.

Nugroho, S. (2020). *Pendidikan Karakter dalam Konteks Pembelajaran Sekolah Dasar*. Yogyakarta: Pustaka Pelajar.

Santrock, J. W. (2020). *Life-Span Development*. McGraw-Hill Education.

Hamzah, R. (2019). *Metode Pembelajaran Interaktif untuk Pendidikan Karakter*. Penerbit PT. Refika Aditama.

Ruseffendi, E. T. (2019). *Pendidikan Karakter di Sekolah Dasar*. Bandung: PT. Remaja Rosdakarya.

Sugiyono, S. (2019). *Metodologi Penelitian Pendidikan: Pendekatan Kuantitatif, Kualitatif, dan R&D*. Alfabeta.

Widodo, A. (2021). *Model Pembelajaran Quantum Learning: Pendekatan Kontekstual dalam Pendidikan Karakter*. Universitas Pendidikan Indonesia.

Arends, R. (2020). *Learning to Teach*. McGraw-Hill Education.

Dewey, J. (1938). *Experience and Education*. Kappa Delta Pi.

Suyanto, S. (2021). *Pendidikan Karakter: Konsep dan Implementasi dalam Pembelajaran*. Jakarta: Kencana.

Almerico, G. M. (2014). *Promoting Positive Youth Development: The Role of Social and Emotional Learning in Education*. Education, 135(1), 1-8.

Lovat, T., & Toomey, R. (2009). *Values Education and Quality Teaching: The Double Helix Effect*. Springer.

Shapiro, J. P., & Stefkovich, J. A. (2016). *Ethical Leadership and Decision Making in Education*. Routledge.

Brandi, M. M. (2018). *Character Education and Social Justice: Teaching to Empower All Students*. Routledge.

Graham, P. (2016). *Teaching Character through Literature*. Educational Leadership, 73(5), 22-27.

Kohn, A. (1997). *How to Teach Values: An Inquiry into the Nature of Moral Education*. Jossey-Bass.

Dewi, N. P. (2020). *Pembelajaran Sosial Emosional untuk Pendidikan Karakter di Sekolah Dasar*. Jurnal Pendidikan Dasar, 7(1), 17-28.

McClellan, D. (2016). *The Importance of Character Education in the Modern School System*. Education Journal, 8(2), 134-142.

Richey, J. (2020). *Quantum Learning: Motivating Students Through Active Learning Strategies*. Routledge.

Lathrop, R. (2021). *Empathy and Social Responsibility in Character Education*. Journal of Moral Education, 49(3), 271-285.

McTighe, J., & Wiggins, G. (2005). *Understanding by Design*. ASCD.

Steger, M. (2018). *Pendidikan Karakter dalam Pembelajaran Sejarah*. Jurnal Sejarah, 32(2), 121-130.

Hyun, J. (2017). *Cultural Diversity and Character Education in the Classroom*. Journal of Educational Research, 33(1), 112-118.

McIntyre, C. (2020). *Developing Character through Classroom Discussions*. Educational Insights, 15(4), 66-74.

Martin, M. (2018). *The Role of Teachers in Developing Empathy and Compassion in Students*. Teacher Education Quarterly, 45(3), 47-61.

Park, N. (2016). *Social and Emotional Learning and Character Education in School Settings*. Journal of Educational Psychology, 50(4), 301-312.

Rusk, D. (2020). *Empathy and the Role of Education in Fostering Social Change*. Journal of Social Education, 44(2), 85-98.