

PENTA HELIX COLLABORATION IN IMPROVING MADRASAH ACHIEVEMENT

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ABSTRACT

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This study discusses the successful implementation of Pentha Helix Collaboration in improving the achievement of madrasahs at MTs Negeri 2 Deli Serdang in an effort to solve the problems of educational facilities and infrastructure. Involving five main elements—government, business, academics, community, and media—this collaboration was designed in a planned and systematic manner to answer the urgent needs of madrasahs in improving the quality of educational services. This research is included in qualitative descriptive research. Data collection techniques in this study used observation, interviews and documentation. Data analysis used was data collection, data reduction, data presentation, and drawing conclusions/verification. The results of the implementation show that the synergy between the elements of Pentha Helix is able to accelerate the procurement of classrooms, rehabilitation of facilities, and improvement of

other supporting infrastructure. Real contributions from each party, such as CSR funding, technical assistance, community involvement, and media publications, have a significant impact on the progress of madrasahs. This success proves that a collaborative approach based on Pentha Helix can be a strategic and sustainable model in the development of education based on multi-party participation.

Keywords: *Penta helix Collaboration, Madrasah, Achievement, Synergy, planner*

INTRODUCTION

Education is one very important aspect in human life. The aim of education is to help each individual develop their abilities and potential optimally, so that they are able to become knowledgeable and skilled individuals and have good morals. This view shows that education includes all life circumstances that contribute to individual development as a learning experience that occurs in various environments and lasts a lifetime. (Agus Arwani, 2017).

The current orientation of education is character development which is closely related to the optimization of madrasah students. Character formation must be carried out systematically and continuously involving aspects of knowledge, feeling, loving, and acting. This process is carried out through the implementation of the Pancasila Student Profile Strengthening Project (P5) and the Rahmatan Lil'alam Student Profile (P2RA). This profile refers to six dimensions of madrasah students, namely ta'addub, qudwah, muwatanah, tawasut, tawazun and I'tidal.

Character education aims to improve the quality of implementation and results of education in Madrasahs. Character formation cannot only be done by memorizing, but must be supported by examples and practices. MTs Negeri 2 Deli Serdang is the only MTs level Madrasah as a Pilot Project for the Independent Curriculum in the P5 and P2RA programs throughout Deli Serdang Regency. This shifts the

focus of madrasah development to students and the things needed by students to develop their character in achieving. In the end, the activities culminate in achieving increased achievements at MTs Negeri 2 Deli Serdang.

Madrasah is an educational institution that combines general science and religion as the foundation for the formation of students' character and intellect. However, in practice, madrasahs often face various challenges, both in terms of facilities, the quality of educators, and the development of learning programs. If the madrasah does not receive assistance or participation from outside parties—such as the government, the business world, the community, social institutions, and the media—then the potential for the madrasah to develop and improve student achievement will be significantly hampered.

One of the main weaknesses of madrasahs that are not supported by external parties is limited resources. Many madrasahs, especially those in the regions, still lack adequate facilities and infrastructure, such as laboratories, libraries, decent classrooms, and access to information technology. Without financial support or outside assistance, madrasahs find it difficult to make repairs or procure facilities that support modern learning. As a result, the quality of the teaching and learning process becomes less than optimal and students find it difficult to compete with students from other educational institutions with more complete facilities.

In addition, without collaboration with other institutions, madrasahs will be isolated from the development of science, pedagogy, and educational innovation. The absence of teacher training, student development, and cooperation networks with the education community causes madrasahs to run stagnantly. Students also do not have the opportunity to interact with the outside world, participate in competitions, or engage in self-development activities. This has an impact on low motivation to learn, lack of student confidence, and limited achievements that can be achieved in both academic and non-academic fields. Thus, the absence of external participation makes madrasahs lose the opportunity to grow systematically and sustainably. Collaboration is the key in strengthening the competitiveness of madrasahs. Without support and synergy with various stakeholders, madrasahs will be left behind in producing a superior generation that is able to face the challenges of the times. Therefore, openness to cooperation and partnership is a must for madrasahs to be able to carry out their educational functions optimally and relevant to the needs of the community.

Madrasah Achievement is the result of achievement between students, teachers, and the Madrasah itself. Madrasah achievement is the result obtained in the form of impressions that result in changes in the madrasah program. Student achievement is one of the implications of the learning by doing process. The improvement of Madrasah achievement is also influenced by the ability of teachers to adapt to the development of the madrasah curriculum and the Indonesian education system to develop the characteristics and interests of students. The principal of MTs Negeri 2 Deli Serdang strives to provide ample opportunities for students to improve their achievements, both in academic and non-academic fields. 1) The achievements of MTs Negeri 2 Deli Serdang are the results of an assessment of the achievements of the madrasah every year in various fields such as: 1) Madrasah health in the Healthy Madrasah assessment event. 2) General information field on the achievement of madrasah improvement, which is an assessment of academics, facilities and infrastructure, student achievement and community relations carried out by the Public Relations of the North Sumatra Provincial Office at the Madrasah Profile assessment event; 3) Madrasah Administration Management Field; 4) Madrasah news field on social media at the news assessment event on the Madrasah Portal; 5) Assessment of the management of madrasah financial management organized by KPPN

However, there are several problems in the process of achieving it, namely first, the lack of support for infrastructure available at MTs Negeri 2 Deli Serdang according to student needs in developing their interests and talents. This results in low student achievement in both academic and non-academic fields. Based on several research results, infrastructure plays a crucial role in supporting the smoothness and completion of the learning process (Mazayah, 2019). Facilities and infrastructure are factors that greatly influence student achievement (Emy, Laila, Chusnul, & Vina, 2021). Budget limitations in the process of improving the madrasah's facilities and infrastructure are a big task for the Principal of MTs Negeri 2 Deli Serdang.

The second problem is the low level of support from parents in providing support to their children to develop character, talents and interests after school hours are over. This causes limited space for students to develop themselves.

The third problem is the low ability of madrasahs in publishing activities so that the community is less aware of the current improvements in madrasahs. The next problem is the limited ability in implementing madrasah administration, curriculum implementation, the process of continuing the development of student talents and interests, and the low ability to work together with stakeholders and the community.

This problem must be resolved immediately. Support for this system cannot be done by just one Madrasah principal. Realizing this, the Principal of MTs Negeri 2 Deli Serdang, tried to find a solution to get out of this limitation through the Empowerment of the Penta Helix Collaboration Concept in Efforts to Improve Student/Madrasah Achievement.

Penta Helix Collaboration is an innovation model used in order to improve quality or develop cooperative relationships involving five stakeholders, namely government, business (private), media, academics and society, where the five elements have their own messages and influences that are quite large and influential so that when combined in collaboration with a specific goal, better and maximum results will be obtained. (Budhi, Lestari, & Suasih, 2022).

Collaboration built with the interrelationships between actors in the penta helix model, starting from the planning stage of sustainable education development. (Maturbongs, 2020). The role of each actor, always trying to do the best for the development of the achievements of MTs Negeri 2 Deli Serdang.

The principal of MTs Negeri 2 Deli Serdang seeks to analyze and establish collaboration involving 5 elements that will support the improvement of MTs Negeri 2 Deli Serdang's achievements, synergizing with each other for quality character education. The purpose of this collaboration is to create synergy and a sense of responsibility to jointly improve achievements at MTs Negeri 2 Deli Serdang. This program involves collaboration between the government, academics, business, community, and media in an effort to improve the quality of education in madrasahs. Through this program, selected madrasahs receive support in the form of improving facilities and infrastructure, teacher training, curriculum development, and community and business involvement (Ministry of Religion of the Republic of Indonesia, 2019).

Penta helix collaboration at MTs Negeri 2 Deli Serdang involving 5 actors in collaboration namely the Government in this case MTs Negeri 2 Deli Serdang, the Community in this case the Madrasah Committee and all parents/guardians of students, Academics, the business world in this case NGOs, UMKM, Education activist institutions, and the media (in this case social media). The purpose of this collaboration is to create synergy and a sense of responsibility to jointly improve student/Madrasah achievement.

METHOD

This research is included in qualitative descriptive research. This research is an approach that is systematically and planned so that it can provide a deep understanding of the phenomena being studied. (Rahman & Dina, 2020). Data collection techniques in this study used observation, interviews and documentation. Data analysis used was data collection, data reduction, data presentation, and drawing conclusions/verification.

RESULTS

The Penta Helix Collaboration activity carried out at MTs Negeri 2 Deli Serdang is a strategic and planned step in solving various educational problems, especially related to the provision of facilities and infrastructure. Through careful planning, the madrasah collaborates with five important elements—local government, business world, academics, community, and media—to sit together in a discussion forum to formulate priority needs and strategies for solving them. The result of these meetings is a joint action plan that is realistic, measurable, and prioritizes sustainability.

One of the tangible achievements of this collaboration is the construction of new classrooms and the rehabilitation of previously very limited sanitation facilities. The business world contributed in the form of CSR funds and building materials, while academics provided technical assistance and designs for the development of educational facilities that meet standards. The local government helped expedite the licensing process and policy support, while the community and parents of students were directly involved in the development work. Local media helped publicize achievements and build public support.

The impact of the implementation of Penta Helix Collaboration is very much felt. Not only does it accelerate the resolution of infrastructure problems, but it also increases the sense of ownership of all parties towards the progress of the madrasah. This collaboration fosters a participatory culture and strengthens the relationship between the madrasah and its surrounding environment. The end result is an increase in the quality of educational services at MTs Negeri 2 Deli Serdang which is faster, more efficient, and sustainable. The elements that collaborate with each other at MTs Negeri 2 Deli Serdang in Penta Helix Collaboration are:

1. Government

The government has an important role in creating policies, regulations, and programs that support improving student and madrasah achievement. The government can provide budget, infrastructure, and other resources to support activities carried out by other elements in the Penta Helix. The government acts as a regulator as well as a controller who has regulations and responsibilities in developing objects. In this case, it involves all types of activities such as planning, implementation, monitoring, control, promotion, financial allocation, licensing, programs, legislation, development and knowledge, public innovation policies, support for innovation networks and public-private partnerships. The government also has a role in coordinating stakeholders who contribute to the development of collaboration (Budhi et al., 2022). In this project, the government is MTs Negeri 2 Deli Serdang.

2. Academics

Academics consisting of higher education institutions, researchers, lecturers and students, have a role in developing innovation, research, and programs to improve the quality of education. They can provide input, suggestions, and solutions, becoming a source of reference based on scientific studies to improve achievement at MTs Negeri 2 Deli Serdang.

3. Business World

The collaboration implemented at MTs Negeri 2 Deli Serdang, is directed towards non-formal educational institutions, such as:

- 1) Tutoring institutions such as World English in Pare Regency, which provides free training to students and teachers, Genesha Operation (GO) in Motivation and tutoring for general subjects, CV Era Media in Mathematics and English Training and Reinforcement.
- 2) Social Community such as Zakat, Infak and Sadakoh Agency (Baznas) to get educational support assistance for poor and orphaned students, Yakasma to get educational support assistance for poor and orphaned students, National Commission for Child Protection in providing understanding about violence and bullying, North Sumatra Tree Bank in training to multiply tree seedlings, eco Enzyme training, Photosynthesis training (PSB) and Liquid Organic Fertilizer (POC) training, Health institutions namely Health Centers in providing health education to adolescents, providing blood-boosting vitamins for adolescent girls, coaching healthy canteens, and School Health Units, Indonesian Red Cross, playing a role in providing coaching for the Youth Red Cross at MTs Negeri 2 Deli Serdang, Dawah institutions such as MUI provide free training to students to take part in Da'i training.

4. Society

The community in this case is the Madrasah Committee, all parents/guardians of students, and Alumni of MTs Negeri 2 Deli Serdang. This element plays an important role as a support system for providing facilities and infrastructure needed by MTs Negeri 2 Deli Serdang in facilitating the needs of student programs. This element can help identify the needs and problems faced by MTs Negeri 2 Deli Serdang, as well as provide support and resources to meet these needs. The community can also play a role in mobilizing community participation in supporting programs to improve student achievement and MTs Negeri 2 Deli Serdang.

5. Media

Media (in this case social media). The purpose of this collaboration is to create synergy and a sense of responsibility to jointly improve student/Madrasah achievement. Media can also be a means to promote and publish activities carried out in order to improve student and teacher achievement at MTs Negeri 2 Deli Serdang.

Implementation activities of Penta Helix Collaboration in Improving the Achievement of MTs Negeri 2 Deli Serdang include: Establishment of a collaboration forum involving all elements of Penta Helix Collaboration, Preparation of a joint action plan that includes the objectives, activities, and roles of each element, Development of a monitoring and evaluation system involving all elements to ensure the effectiveness of implementation, Increasing the capacity of each element in carrying out its roles and responsibilities, Development of effective communication and coordination mechanisms between elements.

DISCUSSION

The implementation of Penta Helix Collaboration in improving the achievements of MTs Negeri 2 Deli Serdang can provide positive impacts, including:

1. Improvement of Facilities and Infrastructure of MTs Negeri 2 Deli Serdang is an acceleration of the fulfillment of the needs of facilities and infrastructure utilized by students and teachers both in the learning process, P5 and P2RA, and extracurricular activities. The acceleration activities in the field of major facilities and infrastructure managed by community elements are as follows (document evidence in attachment 1):

Table 1. Acceleration of Fulfillment of Facilities and Infrastructure

No	Types of Acceleration of Fulfillment of Facilities and Infrastructure
1	An open hall measuring P = 30 m, W = 15 m, Height = 7 m which is used by students for sports, routine morning activities of the madrasah, extracurricular activities and other activities.
2	Table tennis court P = 36 m, L = 4 m, with 4 tables available
3	Renovation of 23 bathroom units (Lk = 11 units, Pr = 12 units), which is a requirement of the Healthy Madrasah
4	Open Arena Stage P = 16 m, L = 5.5 m, Height = 4.5 m
5	30 laptop units used by students in ICT activities
6	Renovation of computer laboratory room P = 8 m, L = 9 m
7	4 units of Air Conditioner for Computer Laboratory
8	Construction of 2 units of Quran Memorization Houses
8	Additional electrical power

For minor facilities and infrastructure are still carried out by MTs Negeri 2 Deli Serdang. Facilities and infrastructure support the quality of education and achievements of MTs Negeri 2 Deli Serdang. Become a standard related to the learning process. The interest of students with character is closely related to the influence obtained from the facilities provided by MTs Negeri 2 Deli Serdang.

The facilities and infrastructure are utilized by students as facilities for Independent Learning and to show their achievements. So that in the end there are many achievements of students, teachers and madrasahs and events that are held both at regional, provincial and national events.

Currently, almost every subject holds interesting and meaningful learning. Facilities and infrastructure are utilized as independent learning spaces, adjusted to the characteristics of the lessons. The learning process is increasingly interesting, running smoothly and effectively. This is because learning in open spaces will provide different experiences to students.

2. Improving the quality of education and student achievement, through synergy of resources and expertise owned by each element. During the first 30 minutes of each morning, students, teachers and educators carry out a program of deepening religious activities, talent Scouting which is an activity to identify student talent searches and character building for both P5 and P2 RA. The morning schedule implemented at MTs Negeri 2 Deli Serdang (Attachment 2), is as follows:

Table 2.: Morning Activities Table

Day	Activity
Monday	1. Flag Ceremony 2. Prayers to Busyro
Tuesday	1. Prayers to the Asyhigil 2. Prayer of 3 Series (1st week) 3. English Language Accustoming (Week 2) 4. 3 Language Preaching (Arabic, Indonesian, English) (week 3) 5. Arabic Language Accustoming (week 4)
Wednesday	1. Prayer for the Blessing of All 2. Short sermon
Thursday	1. Quranic prayers 2. Memorizing the Qur'an (week 1 to week 3) 3. MTsN 2 DS Got Talent (4th week
Friday	1. Praise be to Nariyah 2. Reading of Surah Al-Kahf verses 1-44 (1st week) 3. Reading of Surah Al-Kahf verses 45-110 (2nd week) 4. Recitation of Surah Yasin (weeks 3 and 4)
Saturday	1. Badr Prayer 2. Morning Exercise and Leisure Walk (alternating homework & worksheets every week) 3. Healthy Breakfast (week 1) 4. Literacy (week 2) 5. Environmental Cleanliness (week 3) 6. Guidance and Counseling (week 4)

Source: MTsN 2 Deli Serdang, 2024-2025

Apart from that, parents of students have understood and given support to their children to develop themselves in extracurricular activities such as OSIM, Scouts, PMR, Dance, Tilawah, Tahfidz, Syarhil Qur'an, Calligraphy, English Club, Silat IPSI SPDKK, Multimedia, Karate, Volleyball, Basketball, Badminton, Table Tennis, Futsal and Archery.

3. Increasing community involvement and support, including the business sector, in supporting programs to improve the achievements of MTs Negri 2 Deli Serdang such as Guidance Institutions, Social Communities, Health Institutions and Dawah Institutions.

In an effort to improve the achievement and quality of education, madrasahs cannot work independently. There needs to be strategic collaboration with various external parties to strengthen the role and function of madrasahs as educational institutions that are not only academically superior, but also have character, are healthy, and are religious. One form of effective collaboration is to establish cooperation with guidance institutions, social communities, health institutions, and da'wah institutions. These four partners provide complementary contributions in encouraging an overall increase in student achievement.

Collaboration with guidance institutions, such as tutoring and counseling, has a direct impact on students' academic achievement. Additional tutoring programs, problem training, and learning assistance can help students understand difficult subject matter and prepare themselves for school exams and academic competitions. On the other hand, counseling services support students' mental health by helping them

manage stress, build motivation, and resolve personal conflicts. This is very important so that students can study with focus and high spirits.

Meanwhile, social communities play a role in fostering students' sense of caring and social character through activities outside the classroom such as community service, environmental care programs, and humanitarian actions. Such activities enrich affective learning experiences, foster empathy, and strengthen cooperation between students. In addition, collaboration with health institutions ensures that students are in optimal physical and mental condition to learn. Regular health checks, nutritional counseling, and healthy living education contribute to increasing enthusiasm for learning and reducing the number of absences due to illness. Meanwhile, collaboration with Islamic missionary institutions strengthens students' spiritual aspects and religious character. Programs such as regular studies, Islamic missionary training, and moral development help shape individuals with noble morals, discipline, and responsibility—values that are very much needed in achieving success both in school and in life.

Overall, the collaboration with the four institutions is a strategic step in building superior and highly competitive madrasahs. This collaboration not only supports improving students' academic grades, but also strengthens character, maintains health, and fosters Islamic values that are characteristic of madrasahs. This collaboration model is in line with the Pentha Helix approach, which prioritizes synergy between educational institutions and various elements of society in order to create an inclusive, participatory, and sustainable education ecosystem.

4. Holder of the National Adi Wiyata School Predicate

MTs Negeri 2 Deli Serdang is also a Category Madrasah Very good as the organizer of the National Community-Based Independent Curriculum Implementation from the Center for Education and Training of Technical Personnel for Education and Religion of the Ministry of Religion of the Republic of Indonesia on January 31, 2024. The involvement of the Business World in this collaboration is a source of information and sponsorship for madrasah activities.

The management of the Madrasah's Social Media is also active in disseminating developments, activities and achievements. The publication process is carried out every day. The goal is to provide a sense of trust and provide a positive impact to the community on the existence of MTs Negeri 2 Deli Serdang. MTs Negeri 2 Deli Serdang has proven that multi-party synergy through the Pentha Helix Collaboration model is an effective strategy in improving madrasah achievement. In this approach, five important elements—government, business, academics, community, and media—work together in planning, implementing, and evaluating educational programs that have a direct impact on the progress of students and the institution as a whole. The implementation of this collaboration does not only focus on physical development, but also on improving the quality of learning and human resource development.

Support from the local government and the Ministry of Religious Affairs is the foundation of policies that strengthen education governance in madrasahs. The business world contributes through CSR programs, such as providing learning aids, scholarships, and renovating facilities. Academics from local universities also provide teacher training and develop character-based and technology-based curriculum. The community, including the madrasa committee and parents, are actively involved in activities to strengthen the culture of learning and supervise school activities. Meanwhile, local media promotes the achievements of the madrasa, thereby improving the positive image of MTs Negeri 2 Deli Serdang in the eyes of the public.

The real result of this collaboration is the increase in student achievement in both academic and non-academic fields. Students of MTs Negeri 2 Deli Serdang have won championships in various science, religious, sports, and arts competitions, both at the district and provincial levels. In addition, a culture of literacy and innovation has grown strongly in the madrasah environment. Pentha Helix Collaboration has created a collaborative, inclusive, and adaptive educational ecosystem, making MTs Negeri 2 Deli Serdang a successful example in developing a madrasah based on participation and mutual cooperation.

CONCLUSION

The implementation of Pentha Helix Collaboration at MTs Negeri 2 Deli Serdang has proven to be very beneficial in supporting the acceleration of the provision of educational facilities and infrastructure.

This collaboration involves five important elements, namely the government, business world, academics, communities, and media, which synergize to strengthen educational development in madrasahs. Through this collaborative approach, MTs Negeri 2 Deli Serdang is able to accelerate the provision of learning facilities, infrastructure improvements, and improvements in other educational services. The active role of all parties in the Penta Helix scheme creates a productive climate of mutual cooperation and strengthens a shared commitment to creating a more appropriate, modern, and inclusive educational environment for all students.

RECOMMENDATION FOR DEVELOPMENTS

1. Investigating the sustainability of Penta Helix Collaboration in improving Madrasah achievement
2. Examining the challenges and obstacles in implementing Penta Helix Collaboration in Madrasah
3. Analyzing the impact of Penta Helix Collaboration on teacher professional development and student outcomes

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