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Realizing a Digital School Ecosystem through the Use of Classpoint at SMP Negeri 7 Medan

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Abstract. *Digital transformation in education has become essential to creating an adaptive and innovative digital school ecosystem. However, SMP Negeri 7 Medan still faces challenges related to teachers' limited competence in utilizing interactive learning media. This Community Service Program aims to provide solutions through mentoring on the use of Classpoint as an interactive learning tool. The method employed is Participatory Action Research (PAR), engaging 20 teachers in problem identification, planning, training, reflection, and follow-up activities. The implementation strategies included lectures, discussions, and hands-on practice.*

The evaluation results indicate a significant improvement in teachers' competence. The average knowledge score increased by more than 50% from pre-test to post-test; 80% of participants mastered basic to advanced Classpoint features, and 70% directly applied them in classroom teaching. Participant satisfaction reached 85%. The program also had a tangible impact on teaching practices, shifting from conventional lecture-based methods toward more interactive and participatory learning. Teachers began integrating quizzes, polls, and digital activities that enhanced student engagement and collaboration. Thus, the program not only improved teachers' digital skills but also marked an initial step toward building a digital school ecosystem at SMP Negeri 7 Medan.

Katakunci:
Media Pembelajaran Digital, Interaktif, Guru.

Abstrak. Transformasi digital dalam dunia pendidikan menjadi kebutuhan penting guna mewujudkan ekosistem sekolah digital yang adaptif dan inovatif. Namun, SMP Negeri 7 Medan masih menghadapi kendala berupa keterbatasan kompetensi guru dalam memanfaatkan media pembelajaran interaktif. Program Pengabdian kepada Masyarakat ini bertujuan memberikan solusi melalui pendampingan pemanfaatan Classpoint sebagai media pembelajaran interaktif. Metode pengabdian menggunakan pendekatan Participatory Action Research (PAR) dengan melibatkan 20 guru pada tahapan identifikasi masalah, perencanaan, pelatihan, refleksi, hingga tindak lanjut. Strategi pelaksanaan meliputi ceramah, diskusi, dan praktik langsung.

Hasil evaluasi menunjukkan adanya peningkatan signifikan kompetensi guru. Rata-rata skor pengetahuan meningkat lebih dari

50% dari pre-test ke post-test, 80% peserta menguasai fitur dasar hingga lanjutan Classpoint, dan 70% langsung mengimplementasikannya dalam pembelajaran. Tingkat kepuasan peserta mencapai 85%. Dampaknya, terjadi perubahan pola mengajar guru dari metode konvensional berbasis ceramah menuju pembelajaran interaktif yang lebih partisipatif, melibatkan siswa melalui kuis, polling, dan aktivitas digital secara langsung. Perubahan ini tidak hanya meningkatkan keterampilan digital guru, tetapi juga mendorong terciptanya pengalaman belajar yang lebih menarik dan kolaboratif. Dengan demikian, program ini berkontribusi pada peningkatan kompetensi teknologi pembelajaran sekaligus menjadi langkah awal terbentuknya ekosistem sekolah digital di SMP Negeri 7 Medan.

1 Introduction

The development of digital technology has brought significant changes to the world of education, encouraging various innovations to improve the quality of learning in schools. One innovation that is now widely adopted is the use of technology-based interactive learning media, which not only makes the learning process more interesting, but also increases student motivation and engagement in learning (Aulia et al., 2024). In today's digital age, teachers are required to be able to deliver adaptive and innovative learning, thereby creating a digital school ecosystem that supports comprehensive educational transformation.

Educational transformation in the digital age requires schools not only to adopt technology, but also to create a learning ecosystem that is engaging, collaborative, and adaptive. One important effort is the use of interactive learning media, which helps increase student motivation, participation, and creativity. In Indonesia, these initiatives are supported by national education policies that emphasize the integration of technology in learning to improve quality and competitiveness. However, beyond policy frameworks, the real challenge lies in preparing teachers and schools to implement digital learning in ways that are practical, sustainable, and beneficial for students. Therefore, strengthening teacher competencies and fostering a digital culture in schools are key to ensuring that interactive learning media can truly transform the learning process.

Teachers are required to master digital pedagogical skills that not only facilitate the teaching and learning process, but also ensure technology-based learning innovations that can contribute significantly to improving the quality of national education. In the context of implementation in the field, the use of interactive learning media requires the support of digital devices and platforms that are capable of bridging pedagogical theory with everyday learning practices. The availability of various educational applications and software offers teachers a variety of solutions for designing learning that is more engaging, participatory, and tailored to the needs of students in the digital age.

However, to achieve this, teachers need to be supported with comprehensive and ongoing training and in-depth digital literacy improvement. This is important so that teachers are not only able to use technology as a tool, but also can effectively integrate technology into innovative, student-centered learning strategies. With the right use of technology and adequate support, the learning process can become more personalized, adaptive, and engaging, thereby increasing student motivation and learning outcomes. Ultimately, this will contribute to the achievement of high-quality and competitive national education goals in the digital age.

One platform that is currently widely used in interactive learning is ClassPoint, a PowerPoint add-in designed to make it easier for teachers to add quizzes, polls, and live interactions to presentations (Anam et al., 2025). The integration of ClassPoint into teaching and learning activities provides an innovative alternative for teachers to improve classroom dynamics through participatory activities that students can immediately engage in. The use of ClassPoint integrated into PowerPoint has been proven to be more effective than traditional presentations because it can increase student motivation, engagement, and understanding in learning (Guinumtad et al., 2024).

The presence of ClassPoint is in line with modern learning needs that emphasize active student involvement. Its main advantage lies in the simple integration with Microsoft PowerPoint, a platform already familiar to teachers, so interactive learning innovations can be

implemented without requiring complex technical skills(Barrio-Barrio, 2024a). Based on the Technology Acceptance Model (TAM), teacher adoption of ClassPoint is influenced by two factors: perceived usefulness and ease of use. In the context of SMP N 7 Medan, these aspects are highly relevant because teachers can directly integrate interactive features into their existing teaching practices without having to master new software. This practicality not only saves preparation time but also enables teachers to focus more on fostering student engagement and motivation. Features such as annotations, quizzes, and interactive questions embedded in PowerPoint further enrich teaching strategies and support a more dynamic learning atmosphere (Mardliyah & Supardi, 2024).

However, the use of ClassPoint in learning practices has not been fully optimized. Not all teachers have sufficient digital competence to implement this technology effectively. This condition can be seen at SMP Negeri 7 Medan, where there are still a number of challenges in the use of digital learning media, ranging from limited understanding of technology to a lack of ongoing practical training. This condition indicates that educational technology, despite its great potential to improve the quality of learning, does not necessarily guarantee its effectiveness without the support of skill mastery and human resource capacity building. The challenges that arise include limitations in teachers' digital literacy, lack of continuous training, and limited technical support. In addition, training programs that have been attended tend to be one-time events without any follow-up to help teachers deepen, practice, and reflect on the consistent use of technology. This is in line with the findings (Azizi et al., 2024) which confirm that low digital literacy among teachers and minimal professional development support are the main obstacles to the optimization of educational technology.

Assisting teachers in mastering technologies such as ClassPoint is not only about transferring technical skills but also about cultivating an innovative mindset in daily teaching practices. To ensure that technology is applied meaningfully, this community service program adopts the Technological Pedagogical Content Knowledge (TPACK) framework, which balances three key aspects: content, pedagogy, and technology. In

practice, the training at SMP N 7 Medan does not stop at introducing ClassPoint features, but guides teachers to design subject-specific learning materials—such as interactive quizzes in science or annotation activities in language learning—that align with pedagogical goals. Through this approach, teachers are encouraged to view ClassPoint not merely as a tool, but as an integral part of lesson planning that enriches content delivery and promotes student engagement. By situating the use of ClassPoint within the TPACK framework, the program directly supports teachers in developing classroom strategies that are both technologically integrated and pedagogically sound, ultimately enhancing the quality of student learning (Hidayat et al., 2024); (Siswadi et al., 2025).

Through mentoring activities, teachers are expected to be able to maximize the use of ClassPoint as an interactive learning medium that not only supports the achievement of learning objectives but also encourages sustainable digital transformation in education. This mentoring is not merely about introducing new technology, but rather forming a digital school ecosystem supported by integrated systems, culture, and digital resources. Teachers not only gain technical understanding, but also develop digital pedagogical skills to design active, innovative, and participatory learning. This program also empowers teachers to be adaptive to technological developments and student needs. Furthermore, continuous mentoring fosters a positive digital culture in schools, reflected in openness to innovation, teacher-student collaboration, and ethical use of technology. Thus, digital transformation occurs not only at the individual level but also institutionally in daily learning practices.

2 Method

This community service activity uses a Participatory Action Research (PAR) approach, which emphasizes the active involvement of teachers as partners in every stage of the program—from problem identification to evaluation (Abbas et al., 2025; Widihastuti et al., 2025). Instead of positioning teachers solely as research subjects, PAR places them as active subjects who collaborate in the planning, implementation, and reflection of activities, ensuring that the results are

contextually relevant and sustainable (Rahmat & Mirnawati, 2020). The stages of the program are shown in the diagram below

Diagram 1. Stages in Community Service

This program is implemented through four interconnected stages: identifying teacher needs, planning joint actions, conducting training, and reflecting on the results. The training itself combines lectures, discussions, and practical exercises, allowing teachers to not only gain theoretical insights but also directly apply their knowledge in creating interactive learning media. This participatory model has proven effective in strengthening teacher competencies and facilitating collaboration between service teams and teachers, thus laying the foundation for sustainable learning innovation (Faizah et al., 2023; Azis et al., 2022). The indicators for the stages of service can be seen in the table below.

Table 1. Stages and Indicators of Success at Each Stage

Stage of Activity	Indicators	Expected Outputs
1. Problem and Needs Identification	- Teachers actively provide information regarding classroom challenges. - A map of problems and needs analysis is compiled. - Teachers' initial competencies, obstacles, and expectations related to interactive media are identified.	A document containing the results of observation and teachers' needs analysis as the basis for program planning.

2. Action Planning	- A joint action plan agreed upon by the community service team and teachers. - Clear program objectives and training strategies (lectures, discussions, practice) are formulated. - Teacher working groups are established as a forum for collaboration.	Action plan document, training schedule, and established teacher working groups.
3. Program Implementation	- Teachers attend and actively participate in lectures, discussions, and practice sessions. - Teachers are able to operate ClassPoint according to the training instructions. - Initial products of interactive learning media using ClassPoint are created.	Interactive learning media products developed by teachers using ClassPoint.
4. Reflection and Evaluation	- Teachers participate in reflection sessions and provide feedback. - Measurable improvement in teachers' knowledge and technical skills. - Recommendations for program sustainability are formulated.	Evaluation report, recommendations for improvement, and follow-up plan for program continuity.

3 Results

The community service activities at SMP Negeri 7 Medan showed a significant impact on improving teachers' competence in utilizing ClassPoint as an interactive learning medium. Participatory Action

Research (PAR)-based mentoring encouraged teachers to actively participate from identifying needs and planning actions to joint reflection. The evaluation results using a Likert scale instrument showed a noticeable improvement in various aspects of teacher competence.

Table 1. Indicators of Program Success

Indicator	Before (%)	After (%)	Increase (%)
Teachers' active participation in mentoring	60	85	25
Dynamics of discussion and collaboration	58	82	24
Increase in conceptual knowledge	55	83	28
Increase in technical skills in using ClassPoint	50	85	35
Creativity in digital learning media products	52	78	26
Relevance of activities to teachers' needs	65	87	22
Teachers' readiness to implement ClassPoint in the classroom	57	85	28

Based on the table, the most significant improvement was in the technical skills indicator for using ClassPoint, which was 35%. This shows that hands-on activities are very effective in equipping teachers with technical skills. The conceptual knowledge and readiness indicators for teachers to implement ClassPoint also experienced a significant increase (28%), indicating that teachers not only understand the concepts but are also ready to integrate them into the learning process.

In addition, the indicators of active participation, discussion dynamics, and creativity in digital learning products showed positive trends, reflecting the formation of a culture of collaboration and innovation in schools. With these achievements, SMP Negeri 7 Medan is getting closer to realizing a sustainable digital school ecosystem, where teachers not only act as technology users but also as facilitators who are adaptive to developments in the digital era.

The improvement of teachers' technical competence was one of the most visible impacts of this program. The data indicated a 35% increase

in technical skills related to the use of ClassPoint, demonstrating that hands-on learning methods were highly effective in enhancing teachers' mastery of technology. Instead of merely receiving theoretical explanations, teachers engaged in direct practice and simulation activities that allowed them to internalize the use of digital tools more effectively.

This impact has enabled teachers, who were previously less confident in operating technology, to become more proficient and independent in applying it. They were able to explore the features of ClassPoint, ranging from creating interactive quizzes and providing real-time feedback to managing more engaging presentations. Such competencies significantly enriched the learning experience for students.

Furthermore, the enhancement of technical skills instilled greater confidence among teachers. Mastering digital tools not only improved their competence but also increased their motivation to innovate continuously in classroom practices. This transformation has positioned teachers to adapt more quickly to the dynamic demands of the digital era. Beyond technical skills, the program also fostered substantial improvements in conceptual knowledge and readiness to integrate technology into teaching practices. Both indicators increased by 28%, signifying that teachers were not only learning how to operate ClassPoint but also developing a deeper understanding of the pedagogical significance of digital integration.

Conceptual understanding is crucial as it forms the foundation for teachers to design more meaningful and student-centered learning experiences. Teachers began to recognize technology not simply as a supporting tool but as an essential component of interactive and collaborative pedagogy. This orientation equipped them with the ability to strategically align digital tools with instructional objectives.

Increased readiness further confirmed that teachers had gained the confidence to apply ClassPoint in classroom contexts. They were not only technically capable but also able to adapt its features to the specific characteristics of their subjects and students' learning needs. This readiness marks a significant shift toward sustainable integration of digital learning in daily teaching.

Another notable impact was the cultivation of a collaborative culture and active participation among teachers. The data showed a 25% increase in active participation and a 24% improvement in discussion dynamics, both of which reflect a change in teachers' attitudes. Teachers became accustomed to engaging in all stages of the program—from needs identification to collective reflection—consistent with the principles of Participatory Action Research (PAR).

This shift indicated that teachers no longer viewed themselves as passive recipients of training but as active contributors to the success of the program. They were more willing to share insights, engage in critical discussions, and contribute ideas that benefited the entire school community. Such practices fostered a sense of ownership that strengthened the sustainability of the outcomes.

The collaborative culture that emerged also enhanced the teachers' professional community. By working together and reflecting collectively, teachers built stronger collegial ties and cultivated a supportive environment for continuous innovation. This cultural shift is vital in sustaining long-term digital transformation in schools.

The program also had a positive effect on teachers' creativity in developing digital learning media. A 26% improvement in this indicator reflected their ability to use ClassPoint not only for technical purposes but also for creative innovation. Teachers began producing more engaging and interactive content tailored to their subjects and students' contexts.

This creativity stemmed from teachers' growing confidence and their recognition of the diverse potential of digital tools. Interactive features such as quizzes, polls, and real-time assessments encouraged teachers to experiment with new instructional designs. As a result, classroom practices became more dynamic, stimulating, and conducive to active student participation.

The increased creativity also revitalized the teaching–learning process by reducing monotony and enhancing variety in instructional delivery. Students benefited from more enjoyable learning experiences, while teachers experienced greater professional satisfaction by seeing their innovations positively impact classroom engagement.

Another significant impact was the alignment of program activities with the real needs of teachers. The relevance indicator increased by 22%, showing that the activities were designed and implemented in ways that directly addressed practical challenges faced by teachers in their daily teaching. The participatory approach used in the program ensured that teachers' voices were included from the beginning.

Because of this alignment, teachers perceived the program as highly beneficial and directly applicable to their classroom practices. The relevance of the program reinforced teachers' motivation to apply the knowledge and skills they had acquired. This responsiveness also distinguished the program from generic training models that often fail to address local realities.

In the long term, the strong alignment between program activities and teachers' needs is expected to enhance satisfaction and commitment to professional development. Teachers felt acknowledged, valued, and supported in their efforts to grow, which further motivated them to sustain the integration of digital tools in their teaching practices.

Taken together, the overall improvements across multiple indicators demonstrated that SMP Negeri 7 Medan is moving toward the realization of a sustainable digital school ecosystem. The combination of enhanced technical skills, conceptual understanding, creativity, active participation, and program relevance provides a solid foundation for the school's digital transformation.

Teachers are no longer positioned solely as technology users but have become facilitators capable of adapting to rapid technological developments. Their ability to design interactive learning and guide students in the effective use of digital tools marks a shift toward a more adaptive and future-ready pedagogy.

These outcomes highlight the transformative impact of the community service program, which successfully cultivated a culture of collaboration and innovation while equipping teachers with the competencies necessary for the digital age. SMP Negeri 7 Medan now stands closer to its vision of becoming a sustainable digital school with adaptive, innovative, and forward-looking educators.

4 Discussion

The Community Service (PkM) activities carried out at SMP Negeri 7 Medan from April 26 to July 31, 2025, have produced a number of important achievements that have made a real contribution to improving the quality of learning and strengthening the digital-based school ecosystem. Each stage of the activity was systematically designed with teachers as key partners, ensuring that the program was not only focused on improving technical skills but also on shifting the learning paradigm toward a more interactive, participatory, and adaptive approach aligned with technological advancements. The following is an explanation of the stages of the activity.

a. Problem identification and needs analysis

The results of an interview conducted with the principal of SMP Negeri 7 Medan on April 26, 2025; show that the learning process is still conventional. Teachers tend to rely on lecture methods with standard presentation media such as PowerPoint, which is one-way. Interactive learning technology has not been optimally integrated, both in the planning and implementation stages of classroom learning. This condition makes learning less interesting, minimizes interaction, and is still teacher-centered rather than student-centered. These findings reveal a gap in teachers' digital competencies and the need for more contextual mentoring strategies. Furthermore, the training that has been conducted so far tends to be general and one-off, without any follow-up to deepen understanding and practice in the use of interactive learning technology. As a result, teachers are not yet fully capable of effectively integrating technology into their daily teaching practices. This reinforces the need for more structured and contextual training programs that are tailored to the actual conditions and needs in the field. In addition, ongoing technical assistance is also very important to help teachers overcome technical obstacles and increase their confidence in optimally using digital applications and devices.

Figure 2. Problem Identification and Needs Analysis

These findings are in line with the results of research by (Elisa et al., 2024) which states that the main obstacle to digital transformation in schools is teachers' limited use of interactive technology. Therefore, identifying this problem is the main basis for designing a mentoring program that aims to equip teachers with technical skills while encouraging a paradigm shift in learning towards a more participatory and innovative approach.

b. Community Action Planning

Based on the results of the needs assessment, the community service team collaboratively developed an action plan with the teachers. The planning included setting goals, implementation strategies, and community organization. This planning stage demonstrated the strengthening of teacher participation as subjects of community service, rather than merely objects receiving benefits. This is in line with the Participatory Action Research (PAR) approach, which places the assisted partners as the main actors in every stage of the activity. This collaborative planning stage not only strengthens the teachers' sense of ownership and responsibility for the program's sustainability, but also encourages open and dynamic communication between all parties involved. These findings also form the main basis for the formulation of a holistic and contextual mentoring program design. Thus, the mentoring program does not only function as a short-term intervention, but becomes an integral part of continuous and community-based efforts to improve the quality of education.

c. Activity Implementation

This activity was conducted offline in the digital classroom of SMP Negeri 7 Medan on June 16, 2025, with the following series of stages.

1) Speech

The first session of the activity began with a speech by the Principal of SMP Negeri 7 Medan and continued with an interactive lecture delivered by the Pengbadian Team to provide theoretical reinforcement to teachers as a basis for understanding the urgency of learning transformation in the digital age. The material presented covered three main points, namely: (1) the concept of 21st century learning and the importance of integrating critical thinking, collaboration, communication, and creativity skills in the learning process; (2) the basic principles of the Merdeka Curriculum, which emphasizes the role of teachers as learning facilitators who focus the educational process on the needs and potential of students; and (3) an introduction to ClassPoint as an interactive learning medium that can increase student participation through quizzes, polls, and live annotations in presentations. This presentation not only introduced technology as a tool, but also emphasized its role as an essential element in creating a collaborative, interactive, and adaptive learning environment that meets the needs of students

Figure 3. Interactive Lecture with Partners

The results of this session show that most participants recognize the need to transform from conventional lecture methods to more student-centered and interactive learning.

Teachers are beginning to understand that effective learning is not just about delivering material, but also about creating a communicative and collaborative classroom environment where students are encouraged to actively participate, ask questions, discuss, and explore. This awareness marks a paradigm shift in the learning process, where teachers are no longer the sole source of information but rather act as facilitators who support students' cognitive, social, and emotional development. In addition, teachers are also beginning to realize the importance of adapting to the dynamics of today's educational technology, which requires flexibility and innovation in designing learning methods that are relevant to the needs and characteristics of the digital generation.

This understanding is in line with findings in digital pedagogy training studies, which show that technology-based training programs can significantly improve teachers' confidence and perceptions of the effectiveness of technology integration in the learning process (Pongsakdi et al., 2021).

2) Participatory Discussion

In the second session, the activity continued with a participatory discussion approach focused on exploring in depth the experiences, challenges, and real needs faced by teachers in the daily learning process. This activity not only strengthened professional bonds between educators, but was also in line with the principle of reflective practice, namely the ability of teachers to adaptively adjust learning strategies to the specific context of the learning environment. The discussion was facilitated in groups and across subjects, creating a collaborative space that encouraged the exchange of ideas, critical reflection on conventional learning practices, and the identification of opportunities for integrating interactive technology into teaching and learning activities. Through this forum, teachers began to develop initial strategies for implementing ClassPoint based on the characteristics of their respective subjects.

Figure 4. Participatory Discussion with Partners

The results of the discussion showed that many teachers had difficulty maintaining student attention and engagement during lessons, especially when using a one-way approach with static presentation media. The idea of using interactive features in ClassPoint, such as digital quizzes, instant polls, and real-time annotations, was seen as having great potential to increase student participation and liven up the classroom atmosphere. Furthermore, this discussion also strengthened the collective commitment among teachers to innovate in the sustainable use of digital learning media.

These findings are in line with a study conducted by (Kamali & Javahery, 2025), which shows that collaborative reflection in the context of a community of practice can broaden pedagogical insights, encourage joint problem solving, and support the development of learning designs that are more contextual and responsive to student needs. Through active involvement in this community, teachers can identify limitations in interactive learning and jointly design innovative solutions relevant to the dynamics of their respective classrooms. Thus, collaborative reflection becomes an important foundation for continuous professional development and the transformation of educational practices that are more relevant, inclusive, and meaningful.

3) Hands-on Practice (*learning by doing*)

The third session focused on a hands-on approach (learning by doing) aimed at equipping teachers with the technical skills to use and integrate ClassPoint into the learning process. One of the

advantages of ClassPoint is its integration of Artificial Intelligence (AI) technology, which makes it easier for teachers to generate learning content automatically. This AI feature assists teachers in creating presentation materials, quiz questions, and evaluative exercises that can be used to test students' level of understanding more quickly, efficiently, and adaptively to learning needs (Ikhsan et al., 2024). At this stage, teachers were trained in the application installation process, the operation of key features, and direct application in PowerPoint-based teaching media design. Practical activities included several main activities, namely designing interactive quizzes relevant to each teacher's subject, using instant polls, applying real-time annotation techniques during presentations, conducting digital learning simulations independently or in groups, and receiving direct feedback from facilitators and fellow teachers as part of the reflective process and skill reinforcement.

Figure 5. Hands-on Practice Using ClassPoint

Based on observations, all participants showed high enthusiasm during the series of mentoring activities, especially during the hands-on session on using ClassPoint. This enthusiasm was evident in the participants' active involvement in each simulation, their keen curiosity when exploring interactive features, and their willingness to share their experiences and practice results with their peers.

Para guru tidak hanya mengikuti instruksi fasilitator secara pasif, tetapi juga secara proaktif mengajukan pertanyaan, mencari solusi atas berbagai kendala teknis, serta secara kritis merefleksikan potensi dan tantangan penggunaan ClassPoint dalam konteks kelas mereka masing-masing. Partisipasi aktif ini menunjukkan keberhasilan proses pendampingan dalam menciptakan lingkungan belajar yang partisipatif, kolaboratif, dan transformatif, yang tidak hanya mempercepat adopsi teknologi pembelajaran digital, tetapi juga membangun rasa percaya diri dan kemandirian guru dalam memanfaatkan teknologi secara optimal.

This approach emphasizes that the most effective learning occurs when teachers are directly involved in real practical experiences, rather than just receiving theoretical or instructional knowledge transfer. Thus, the experience-based learning process (learning by doing) helps teachers to internalize new skills, adapt the use of software to the needs of the class, and innovate in their teaching methods.

This shows that the ClassPoint-Based Interactive Learning Media Utilization Assistance program at SMP Negeri 7 Medan is a concrete example of the effective application of the principle of practice-based learning. In addition to improving teachers' technical skills, this program also strengthens the proactive and collaborative attitudes that are important in facing the dynamics of educational technology development. The success of this program can be a model for other schools in building an adaptive, innovative, and sustainable digital learning ecosystem, while supporting educational transformation in the digital era that demands high skills and creativity.

d. Reflection and Evaluation

The reflection and evaluation stage was carried out by distributing questionnaires to all participants. This instrument was used to measure the effectiveness of the mentoring program in various aspects, both in terms of process and results. The summary of the questionnaire results is presented as follows.

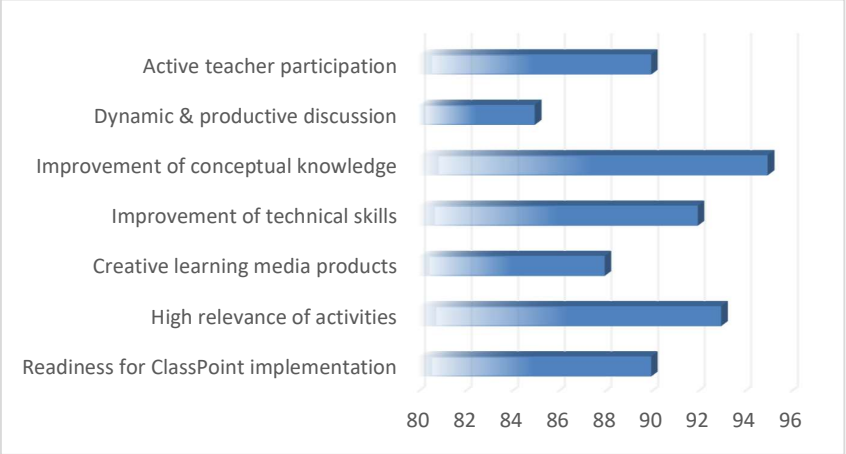

Figure 6. Graphic Showing The Results of Reflection and Evaluation of Mentoring Activities

The joint reflection results from this mentoring activity show significant success in several important aspects, namely the process and outcome aspects. In terms of process, there was a noticeable improvement in the active participation of teachers, who were fully involved in every stage of the activity. The discussions were dynamic and ongoing, making communication between teachers more intensive and productive. This created a collaborative atmosphere that strengthened the spirit of togetherness in adopting digital learning technology.

Meanwhile, in terms of results, there has been very meaningful progress. Teachers have demonstrated an increase in their conceptual knowledge of interactive learning and a greater understanding of the importance of using digital technology in teaching. In addition, teachers' technical skills in utilizing the ClassPoint application have matured, enabling them to produce creative, innovative digital learning media that meets the needs of students. The products produced are able to support a more effective and enjoyable teaching and learning process.

Feedback from teachers also showed that this mentoring activity was highly relevant to actual needs in the field, particularly in terms of meeting the demands of modern curricula that require the integration of digital technology in the classroom. The

majority of participants expressed a high level of readiness to immediately implement ClassPoint directly in their teaching and learning activities.

From the joint evaluation, constructive follow-up actions were determined in the form of establishing a teacher learning community that functions as a forum for sharing experiences and knowledge on an ongoing basis so that teachers can be motivated to continue adopting and developing digital technology at SMP Negeri 7 Medan. Similar studies also show that the sustainability of technology application in learning is highly dependent on the support of learning communities and consistent mentoring (Safitri et al., 2024); (Dayana & Sari, 2023). Thus, this mentoring activity was not only successful in the short term, but also opened up strategic opportunities for strengthening teacher capacity and developing sustainable learning innovations at SMP Negeri 7 Medan.

5 Conclusion

The community service activity in the form of Assistance in Utilizing ClassPoint-Based Interactive Learning Media at SMP Negeri 7 Medan has been successfully implemented. Through this activity, teachers gained practical understanding and skills in integrating interactive learning technology into their daily learning processes. This assistance not only improved the teachers' digital pedagogical competence, but also encouraged the formation of a more participatory, engaging, and technology-based learning culture. The use of ClassPoint proved to be effective in helping teachers create a more interactive classroom atmosphere, where students could be more actively involved through quizzes, polls, and live annotations in presentations. Furthermore, this activity has made a significant contribution to the process of establishing a digital school ecosystem at SMP Negeri 7 Medan. This is marked by increased awareness and readiness among teachers to adopt technology as part of a long-term learning strategy, as well as the formation of a collaborative network among teachers in the development of digital learning media. With these positive results, it is hoped that similar

activities can be continued on an ongoing basis and expanded to other schools, in order to accelerate the transformation of education towards an inclusive and high-quality digital era.

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