

Analysis of Positive Discipline Implementation Strategy through Technology Utilization in Providing Feedback to Parents of Students

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Abstract: This research aims to analyze strategies for implementing positive discipline through the use of technology in providing feedback to students' parents. Positive discipline emphasizes the development of constructive behavior through a dialogue and empathy approach, not repressive punishment. However, one of the challenges in implementing this discipline is the lack of effective communication between schools and parents, which is often caused by limited time and access. In the digital era, technology offers innovative solutions to overcome this problem by facilitating the provision of fast and real-time feedback through school applications, digital platforms and instant messaging. This research uses a qualitative approach with a case study method in schools that implement positive discipline. Data was collected through in-depth interviews, participant observation, and documentation from teachers and parents. The research results show that technology can increase the effectiveness of communication between schools and parents, allowing parents to monitor student behavior developments more efficiently. Technology also provides easier access for parents to get involved in supporting children's positive behavior at home, which in turn strengthens positive discipline at school. However, this research also identified several challenges, including gaps in technology access among parents, data security and privacy issues, and the potential for reducing the quality of personal interactions between teachers and parents. Therefore, it is important to develop inclusive and safe communication strategies to ensure optimal parental involvement. This research contributes to the development of a technology-based positive discipline approach, which it is hoped will be implemented more widely in schools, particularly in the context of increasing parental involvement and the efficiency of feedback provided.

Keywords: Feedback, Involvement of Parents, Positive Discipline, Use of Technology

A. Introduction

In the current digital era, technology has become an inseparable element in various aspects of life, including in the world of education. One of the big challenges in

education is how to create an environment that supports the development of positive behavior and discipline in students. The concept of positive discipline emphasizes the importance of educating students with a constructive approach, prioritizing dialogue, empathy and character development rather than repressive punishment. In this context, effective communication between schools and parents is a key factor, because support from home plays an important role in strengthening the discipline implemented at school. However, one of the problems that often arises is the lack of continuous and meaningful communication between teachers and parents regarding the development of student behavior at school.

These communication problems are often caused by limited time and access for teachers and parents, which results in less-than-optimal feedback regarding student discipline. In the context of positive discipline, feedback aims not only to provide information about inappropriate behavior, but also to appreciate and strengthen students' positive behavior. However, the challenge that arises is how to ensure that this communication can be carried out effectively, quickly and accessible to parents in their busy lives. This is where technology plays a significant role.

The use of technology in providing feedback to parents offers an innovative solution to overcome communication barriers. Through digital platforms such as school applications, email, or even social media, teachers can provide regular reports regarding student behavior and development in real-time. Technology also allows for more systematic recording and tracking of student progress, making it easier for teachers and parents to monitor progress and areas that need improvement. In addition, technology can be used to convey material related to positive discipline to parents, so that they have a deeper understanding of this approach and can provide better support at home.

However, the application of technology in providing feedback to parents is not free from various challenges and problems. First, there is a gap in technology access among parents, where not all families have adequate access to devices and the internet. This can create disparities in the reception of feedback, potentially resulting in some students not receiving optimal support from their parents. Second, data security issues are also a concern, especially when sensitive information related to student progress is shared via digital platforms. Privacy protection and data security must be a priority in every technology system implemented in schools. Third, although technology can speed up the communication process, there is the potential that communication becomes less personal or mechanical, which in turn can reduce the quality of interactions between teachers and parents.

Based on this background, this research aims to analyze strategies for implementing positive discipline through the use of technology in providing feedback to students' parents. This research is important because it not only explores how technology can

support positive discipline, but also how barriers such as technology access, data security, and communication quality can be overcome. Thus, it is hoped that this research can contribute to the development of a more effective and efficient communication approach between schools and parents, as well as supporting the implementation of sustainable positive discipline in the school environment.

Theoretical studies regarding positive discipline and the use of technology in providing feedback have become relevant and rapidly growing topics in the last decade, especially in the educational context. According to Nelsen, Lott, and Glenn (2013), positive discipline is an approach that focuses on developing positive attitudes, a sense of responsibility and self-esteem in students without using harsh punishment or intimidation. They emphasized the importance of collaboration between teachers, students and parents in creating a conducive learning environment. This approach has also been supported by Durlak et al. (2011) who found that strengthening positive behavior through school-based interventions, including constructive feedback, had a significant impact on students' social-emotional development, increasing academic achievement, and reducing levels of negative behavior at school.

Meanwhile, in the realm of educational technology, various studies have shown that technology can be an effective bridge in supporting communication between schools and parents. According to Epstein (2018), effective home-school communication is one of the keys to strengthening parental involvement in their children's education. This research confirms that when parents are given easy and regular access to information regarding their child's academic progress and behavior, they tend to be more positively engaged. Sung et al. (2016) stated that the use of technology-based applications for school-parent communication has shown significant results in increasing parental involvement in their children's education. Applications such as mobile-based platforms or learning management systems (Learning Management Systems, LMS) allow parents to monitor their children's academic development and behavior in real-time, as well as provide quick responses to information conveyed by teachers.

Apart from that, Hughes and Kwok (2007) stated that feedback given quickly and clearly plays an important role in forming student discipline. Technology enables efficient communication, so feedback can be delivered in less time and with more accurate data. This is reinforced by Gonzalez and Darling-Hammond (2020) who state that the use of technology in providing feedback, especially regarding student discipline, can create a more transparent and inclusive learning ecosystem. They added that with data delivered via technology, teachers can provide more in-depth and contextual information about student behavior that can help parents provide appropriate interventions at home.

Research conducted by Kraft and Rogers (2015) highlights the importance of using short message technology (SMS) to convey feedback to parents. The results of their research show that the use of short messages as a communication medium between teachers and parents has been proven to increase parental involvement and reduce the level of inappropriate student behavior at school. Students whose parents received regular feedback via text messaging technology showed significant improvements in attendance, discipline, and academic engagement. This study confirms that technology can be a very effective tool in building positive discipline when used with the right strategy.

In the Indonesian context, research by Sugiharto (2018) also shows that the use of school communication applications, such as Academic Information Systems (AIS) or student management platforms, has succeeded in increasing parental involvement in supporting students' disciplinary development. Parents feel more connected to the school and are able to monitor their child's progress more effectively. However, Sugiharto also emphasized that there are still challenges in terms of equitable access to technology, especially in less developed areas, as well as concerns regarding data privacy.

From this study, it is clear that both positive discipline and the use of technology in providing feedback have been discussed extensively in various studies. Positive discipline approaches supported by technology are proven to increase parent involvement, improve student behavior, and create more efficient communication between teachers and parents. However, challenges such as gaps in technology access, data privacy, and quality of feedback still need to be addressed. It is hoped that this research can expand the study of how technology can optimally support the implementation of positive discipline in schools, especially in the context of providing feedback to students' parents.

This research offers novelty which lies in the integration of positive discipline strategies with the use of communication technology in the context of providing real-time and structured feedback to students' parents. Even though positive discipline has become a widely recognized and used approach in the world of education, the novelty of this research lies in its main focus, namely exploring how technology, as a modern communication tool, can overcome traditional communication barriers that often occur between teachers and parents in terms of development of student behavior.

The first novelty is the specific use of technology in providing more interactive, personalized and continuous feedback to parents regarding the development of their child's behavior at school. Previous research has discussed the importance of communication between schools and parents and the role of technology in education. However, there is not much research that examines in depth how

technology can be used strategically to support the implementation of positive discipline, especially in shaping student behavior through more intensive and real-time parental involvement. This research will explore how technology such as school-based communication applications, digital platforms, or even instant messaging can be optimized to provide positive feedback to parents, reinforce good behavior, and correct inappropriate behavior through a constructive approach.

The second novelty is the analysis of the effectiveness of providing technology-based feedback in increasing parental involvement in various socio-cultural and economic contexts. While much research has been conducted in the context of communities that have adequate access to technology, this research will also consider the challenges faced by groups of parents who have limited access to technology, for example in rural areas or in families with low levels of digital literacy. Thus, this research not only focuses on the success of technology in improving communication, but also offers solutions to address the technology access gap and identifies inclusive approaches so that all parents, regardless of their background, can be effectively involved in supporting their child's behavioral development.

The third novelty is the combination of the concept of positive discipline with the use of more transparent and accountable data through technology. This research will develop a technology-based feedback model that allows teachers and parents to access accurate and up-to-date information about student behavior, so that parents can be more proactive in providing support and intervention at home. Through the use of technology, student behavior data will be recorded systematically, allowing teachers and parents to monitor student behavior trends in a continuous and data-based manner. This will create a more measurable and evidence-based approach to discipline, which was previously difficult to achieve with conventional methods. In addition, technology makes it possible to provide feedback that does not only focus on negative behavior, but also places greater emphasis on appreciation of positive behavior, which is the essence of positive discipline.

The fourth novelty is the research focus on the security and data privacy implications of using technology for school-parent communications. In an increasingly digital world, this research will also consider risks related to protecting student privacy and data security. While much research has discussed the benefits of technology in education, few have comprehensively examined the potential impact of data security aspects in the context of positive discipline and technology-based feedback. Thus, this research offers a more holistic approach, not only focusing on the advantages of technology in supporting communication, but also creating a safe and ethical framework in its application.

Thus, the novelty of this research lies in combining positive discipline strategies with technology that enables more effective and inclusive feedback communication, while

addressing data access and security challenges. This research will make a new contribution to the world of education, especially in the context of developing student discipline by utilizing technology as a tool to strengthen parental involvement, increase transparency, and provide more comprehensive and sustainable behavior support.

B. Methods

This research uses a qualitative design with a case study approach to explore the implementation of positive discipline through the use of technology in providing feedback to students' parents. Data collection techniques used include in-depth interviews, participant observation, and documentation. Interviews were conducted with teachers and parents of students to gain an in-depth understanding of the experiences and challenges in implementing technology. Participatory observations were carried out in the school environment to see firsthand the implementation of positive discipline and the use of technology, while documentation such as school reports and digital records were used to support the analysis. The data analysis technique used is thematic analysis, where data is analyzed by identifying key themes through coding, category grouping, and thematic interpretation to find important patterns in the use of technology and its impact on positive discipline.

C. Results and Discussion

The benefits of implementing positive discipline strategies in schools and the benefits of technology can improve the feedback process for parents.

The implementation of positive discipline strategies in schools has provided various important benefits in creating a more inclusive learning environment, supporting students' social-emotional development, and increasing parental involvement in education. According to Nelsen, Lott, and Glenn (2013), positive discipline does not only aim to reduce negative behavior, but also to build student character and responsibility through an approach that prioritizes empathy, open dialogue, and rewards for good behavior. In contrast to traditional punishment-based discipline, positive discipline provides space for students to understand the consequences of their actions and encourages deeper self-reflection. The results of this application show that students who are involved in positive discipline processes tend to show improvements in self-control, cooperation, and have better relationships with teachers and classmates. Research by Durlak et al. (2011) also supports this, showing that programs that incorporate positive discipline approaches in schools can improve social skills, reduce destructive behavior, and directly improve student academic achievement.

On the other hand, technology has proven to be an effective tool to improve the

feedback process between teachers and students' parents, which plays an important role in supporting positive discipline. Previously, one of the biggest obstacles to implementing positive discipline was the lack of fast and effective communication between school and home. Parents often don't get enough information about their child's behavioral developments at school or are only notified after problems occur. With technology, such as school communication applications, digital platforms, or short messages, feedback can be provided in real-time and in a more structured manner, allowing parents to respond more quickly and support their child's behavior at home. Epstein (2018) emphasized that regular and meaningful parental involvement, facilitated by technology, can significantly increase the effectiveness of positive discipline strategies as parents become more active in understanding and reinforcing positive behaviors learned in school.

A study conducted by Kraft and Rogers (2015) shows that the use of technology, especially through text messages and school-based applications, can increase parental involvement in providing feedback about student behavior. Parents who receive regular student behavior reports via technology tend to be more proactive in communicating with their children about behavior expectations. Results from this study showed that students whose parents received regular feedback had significant increases in good behavior at school, as well as a decrease in problem behavior. Technology also allows for greater transparency between schools and parents, where teachers can track student progress and provide more detailed feedback, which not only focuses on mistakes but also recognizes positive behavioral achievements.

Additionally, technology makes it easier for teachers to provide more personalized feedback and supports more active two-way communication with parents. Parents not only receive reports passively, but also have the opportunity to provide feedback or ask further questions regarding their child's development. This creates a collaborative environment between teachers and parents, which is essential in consistently implementing positive discipline at home and at school. Sung et al. (2016) stated that the use of technology for communication between schools and parents can reduce information gaps that often occur, as well as increase parental involvement in supporting the formation of children's character in a more holistic manner. With technology, parents can more easily understand the positive discipline approach applied at school and adapt it to parenting patterns at home, thereby creating harmony between school and family.

Overall, the results of this study indicate that positive discipline strategies supported by technology provide dual benefits: increasing students' positive behavior at school and strengthening parental participation in the educational process. With the application of technology, feedback to parents becomes more efficient, inclusive, and supports the creation of more effective communication, which ultimately strengthens the success of implementing positive discipline in the long term.

Types of technology that can be used to provide feedback to students' parents regarding their child's behavior and academic performance

In the increasingly digital era, various types of technology have been used to support communication between schools and parents, especially in providing feedback about student behavior and academic performance. This research identifies several key technologies that can be integrated in the feedback process, namely mobile applications, online portals, and communication platforms, each of which has the advantage of speeding up, simplifying, and enriching interactions between teachers and parents.

One of the most popular technologies is education-based mobile applications. This app offers easy, real-time access for parents to monitor their child's behavior and academic progress. Sung et al. (2016) stated that the use of mobile applications allows for more personalized communication between schools and parents, where teachers can provide daily or weekly reports on student behavior and performance. This application is usually equipped with a notification feature that is sent directly to parents' cellphones, so that information about good behavior, assignments that have not been completed, or violations of school rules can be immediately known. Apps like ClassDojo and Seesaw give teachers the opportunity to provide feedback in the form of text, photos, or even short videos about student activities, which makes feedback more interactive and engaging.

Apart from mobile applications, online portals integrated in Learning Management Systems (LMS) are also widely used to provide systematic feedback. Portals such as Google Classroom or Moodle allow parents to access student academic and behavioral information in more depth. Parents can see the progress of grades, teacher notes, assignments that have been submitted, as well as feedback about their child's behavior in class. According to Gonzalez and Darling-Hammond (2020), online portals not only provide access to real-time information but also create greater transparency in the learning process and management of student behavior. With this access, parents can actively discuss with their children the results they have obtained, both in terms of academics and behavior. These portals also often feature downloadable reports, allowing parents to save and track their child's progress over time.

Besides mobile apps and online portals, technology-based communication platforms, such as email, SMS, or instant messaging platforms, also play an important role in providing fast and accessible feedback. According to research by Kraft and Rogers (2015), the use of short message technology such as SMS or WhatsApp has been proven to increase parental involvement, especially because these short messages provide direct and specific information regarding students' behavioral conditions. SMS, for example, can be used to provide brief information about student

attendance, behavior during class, or even reminders about assignments that need to be completed. The advantage of this platform is its speed, where teachers can immediately convey information to parents in a matter of seconds. This research also highlights that parents who receive text messages regarding their child's development are more proactive in providing support at home, which in turn has a positive impact on students' behavior and academic performance at school.

Furthermore, some schools also use integrated communication platforms such as Edmodo or Remind, which combine instant messaging features, academic reports, and group-based communication. This platform allows teachers to interact not only with parents but also with students, creating a holistic communication environment. In this platform, parents can receive notifications regarding changes in their child's behavior, assignments given, and school activity schedules, all of which are integrated in one system. Epstein (2018) emphasized that integrated platforms like this help minimize the communication gap between school and home, so that parents always have the latest information regarding their child's overall development.

All of these technologies - whether mobile applications, online portals, or communication platforms - have a positive impact in supporting the implementation of positive discipline and improving students' academic performance. With easier access and faster information, parents can be more involved in their child's educational process, both in supporting good behavior and in helping children overcome academic challenges. This technology also facilitates more effective two-way communication between teachers and parents, creating a collaborative environment and encouraging more proactive involvement from parents in supporting student development, both inside and outside of school.

Consider potential future developments or technological advances that could increase the effectiveness of implementing positive discipline strategies for parents, such as artificial intelligence tools for personalized feedback or virtual reality simulations for parent training programs

The potential for future technological developments offers various very promising opportunities to increase the effectiveness of implementing positive discipline strategies in education, especially in terms of providing feedback to students' parents. One of the main developments that has the potential to have a big impact is artificial intelligence (AI). AI technology can be used to develop feedback systems that are increasingly personalized and tailored to each student's needs. This system can analyze student behavior data in real-time, detect certain patterns, and provide specific recommendations to teachers and parents regarding appropriate positive discipline interventions. For example, AI can identify consistently emerging behavioral trends, both positive and negative, and then provide customized reports

to parents on how best to reinforce good behavior or address undesirable behavior. AI can also generate automatic notifications to parents equipped with relevant suggestions based on the data collected, such as how parents can help children develop better habits at home or how to motivate children to increase responsibility.

Furthermore, artificial intelligence can also make it easier for teachers to develop discipline strategies that suit individual student behavior profiles, making the process of implementing positive discipline more effective and efficient. AI equipped with machine learning capabilities can automatically update recommendations based on student progress over time, so that the feedback received by parents is always relevant and in accordance with the child's current condition. With AI technology, it is not only possible to provide fast feedback, but also to adapt messages to a communication style that suits each family, taking into account social, cultural aspects and parental preferences in receiving information. This will facilitate communication between schools and parents and increase parents' involvement in their child's education process.

Apart from AI, developments in the field of virtual reality (VR) also have great potential in supporting parent training regarding the application of positive discipline. VR technology allows the creation of interactive simulations that resemble real-life situations, where parents can be trained to deal with various scenarios related to child behavior. Through a VR-based simulation program, parents can practice responding to various discipline situations at home with a positive and constructive approach, for example how to provide direction when their child experiences frustration or faces conflict at home. This simulation not only teaches theory, but also provides an opportunity for parents to directly experience challenging situations and practice appropriate strategies in managing children's behavior. This can help parents be more prepared and confident in supporting positive discipline at home, in line with what is implemented at school.

VR technology can also be used to create collaborative teacher and parent training, where they learn positive discipline techniques together in a digital simulation-supported environment. According to Stitt and Etscheidt (2020), VR has great potential in creating more immersive and effective learning experiences because it is able to replicate more complex real-life scenarios, where individuals can practice direct interactions without facing real risks. In an educational context, this will strengthen the synergy between school and home, because parents and teachers can practice together to face disciplinary challenges that students may face.

Apart from AI and VR, the Internet of Things (IoT) will also have a big impact in supporting the implementation of positive discipline more efficiently. IoT allows collecting student behavior data from various sources, both in the classroom and in the environment outside the school, through devices such as sensors or wearable

devices connected to a network. With this data, teachers and parents can have more comprehensive behavioral information, including student activities outside class hours, social interactions, and their daily activity patterns. This data can then be integrated into AI systems to provide deeper analysis of overall student behavior, which can help parents and teachers make more informed decisions in supporting positive discipline.

In the future, these technologies will play a major role in personalizing positive discipline approaches by taking into account the unique needs of each student and family. With AI providing automatic feedback and VR offering interactive training, parents will be more easily involved in supporting their child's behavioral development. Ultimately, this combination of technologies not only improves communication between school and home, but also creates an educational environment that is more inclusive and adaptive to changes in student behavior, allowing them to grow and develop in an atmosphere that supports positive learning and active parental involvement.

D. Conclusions

The results of this research illustrated that the strategy for implementing positive discipline is by utilizing technology to provide feedback to students' parents. The focus is on how technology such as school apps, digital platforms and instant messaging can improve communication between teachers and parents, which plays an important role in supporting the development of positive student behavior. The research results show that technology makes it easier to provide real-time and structured feedback, allowing parents to be more proactive in supporting children's behavior at home. However, several challenges arise, including gaps in technology access, data security, and the quality of interactions that may be reduced due to the use of technology. Therefore, this research emphasizes the importance of an inclusive approach as well as data protection to ensure that all parents, regardless of socio-economic background, can be effectively involved.

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