

Using SISPEL Application for Character Building of Students in Vocational High School

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ABSTRACT

This study delves into the effects of the SISPEL (Sistem Pelanggaran) application on character development among students in vocational high schools. Specifically, it focuses on 23 students from the Vocational High School Khusus Angkatan Laut - 1 Surabaya, who have been identified for violating school rules. By exclusively employing the SISPEL application, the research intricately examines its role in shaping character traits within the context of vocational education. In this study, we conducted a meticulous questionnaire-based survey to examine the application's impact on ethical values, moral principles, and the cultivation of character-building skills. To provide a more comprehensive understanding of our research methods, we would like to specify that the survey was administered to a diverse sample of the 23 participants, and we focused on assessing specific character traits and values, such as ethical values, moral principles, and the cultivation of character-building skills. The findings of this exploration not only enrich the current comprehension of character development within this specific educational framework but also offer insights into the potential of technology-driven tools like SISPEL to cultivate well-rounded individuals. This research contributes to the broader discourse on character education and underscores the significance of innovative approaches in molding the ethical and moral foundation of students.

Keywords: character building, SISPEL application, students, vocational high school.



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1. INTRODUCTION

1.1. Introduction

The educational system of the 21st century faces a formidable challenge: the task of preparing students for the rapidly evolving information society. In an era where electronic

information sources exert multifaceted influences on the personal, behavioral, and cognitive development of today's youth, it becomes evident that traditional educational methods may no longer suffice. This realization underscores the pressing need for innovative educational methodologies and technologies that can effectively align with the realities of this emerging landscape (Jeynes, 2019; Purnamawati et al., 2019).

Character building and discipline among students, traditionally addressed through conventional pedagogical approaches, now require a fundamentally different perspective. The shift in dynamics affecting students' development, largely driven by digitalization and information overload, necessitates a reevaluation of how character-building skills are imparted. In a world where values and ethics can be influenced and molded by an array of online sources, educators must explore new strategies and techniques to instill robust ethical values and moral principles in students. Moreover, the cultivation of character-building skills should incorporate digital literacy, critical thinking, and responsible online behavior as essential components.

Additionally, the modern educational landscape has increasingly witnessed instances of violence and violations of school regulations. To effectively manage and address these issues, schools must harness advanced technologies for data management and analysis (Simanjuntak et al., 2022). The conventional paper-based record-keeping systems are no longer sufficient to monitor, analyze, and respond to incidents. Advanced technologies, such as data analytics, artificial intelligence, and surveillance systems, can enable educational institutions to proactively identify and address potential problems, ensuring a safer and more secure learning environment. In conclusion, the evolving information society demands a rethinking of educational methodologies and technologies. The challenges posed by the digital age call for innovative approaches to character building, ethical education, and discipline among students. Furthermore, the integration of advanced technologies for data management and analysis is imperative for maintaining a secure and conducive learning environment. Embracing these changes is essential for the 21st-century educational system to effectively prepare students for the complexities of the modern world.

One key aspect to consider is the interplay between character building and the partnership between schools and parents. While major incidents may draw immediate attention, it is the everyday behaviours and their cumulative effects that significantly contribute to an individual's success and the overall culture of a nation (Jones, 2015). Therefore, a comprehensive focus on

character building, including fostering positive values and maintaining discipline, is vital. This necessitates the exploration of new methodologies and approaches that leverage technological advancements to create a conducive learning environment (Brown, 2018). In the context of education, the integration of technology, specifically computers, has proven to be effective in supporting successful teaching and learning processes (Salomon, 1990). Teachers must be equipped with the necessary skills to leverage computer-based tools and resources for enhancing educational outcomes. Moreover, the impact of technology on language learners highlights the potential for utilizing technology in managing student behaviour and maintaining discipline (Guardian Weekly, 2006). Therefore, the integration of advanced technologies becomes a crucial aspect of character building and discipline in educational settings.

The importance of nurturing positive character traits in students extends beyond the confines of the classroom, as it equips them with vital skills to navigate the intricacies and challenges of their social environment. Developing good character enables students to embody and enhance moral values, thereby impacting their daily lives (Nurhasanah & Nida, 2016). It empowers them to make responsible decisions (Ryan & Bohlin, 1999), contribute positively to society (Çubukçu, 2012; McElmel, 2002), and even improve their academic performance (Nurhasanah & Nida, 2016). Good character encompasses behaviours that should be consistently demonstrated in everyday life, and it is fostered through a comprehensive understanding of its moral aspects. In essence, good character is comprised of three interconnected components: moral knowing, moral feeling, and moral action (Lickona, 1991). Moral knowing involves cultivating awareness of moral principles, understanding moral values, considering others' perspectives, employing moral reasoning, and incorporating morality into decision-making processes. Moral feeling encompasses developing a conscience, deriving self-esteem from upholding good values, demonstrating empathy, cherishing goodness, practicing self-control, accepting limitations, and striving towards humanity. Lastly, moral action entails the ability to translate moral awareness and assessment into competent actions, making appropriate decisions, managing emotions, persevering under pressure, and consistently exhibiting good behaviour in various situations. These components serve as the foundation for building good character, and educational strategies play a vital role in manifesting and reinforcing these positive character traits within students. In summary, the cultivation of good character traits in students is a multifaceted process that has been validated by previous research, for example SISPEL application within this current study. It has far-reaching implications for students' daily lives,

decision-making abilities, societal contributions, and even their academic performance. A comprehensive understanding of the interconnected components of good character - moral knowing, moral feeling, and moral action - provides the groundwork for educational strategies to effectively manifest and reinforce these positive character traits within students.

Vocational high schools play a pivotal role in preparing students for specific jobs and equipping them with the necessary skills for the workforce. This emphasis on practical preparation sets vocational education apart from other forms of education, as highlighted by Fakhri & Yufriawati (2009). However, to meet the demands of a rapidly changing job market and ensure that students can lead productive and fulfilling lives as both workers and responsible citizens, vocational education must extend beyond practical skills and encompass the cultivation of good character. Recent research emphasizes the importance of innovative approaches to character building within vocational high schools. These approaches should prioritize the development of critical thinking skills, adaptability, and a strong work ethic among students. By fostering such character traits, vocational high schools can better prepare their students to navigate not only the technical aspects of their chosen professions but also the ethical and interpersonal challenges they may encounter in the workforce (Karami & Danesh, 2018). In the Indonesian national education system, vocational education is defined as a secondary program that prepares learners for specific occupations (Ministry of National Education, 2003). The aim is to provide students with knowledge and skills directly relevant to productivity in various employment areas. However, one significant challenge in vocational high schools is the lack of discipline among students. By placing character development at the core of vocational education, schools can ensure that their graduates not only possess the technical skills required for their chosen careers but also demonstrate the personal qualities and ethical values necessary for success in a rapidly changing job market and as responsible members of society.

To effectively address discipline issues, it is important to understand the various perspectives on discipline. Discipline can be viewed as a combination of rewards and punishments, coercion, obedience, and intervention by teachers or administrators. The ultimate goal of discipline is to guide students' behaviour and prevent disruptions in educational activities (Etzioni, 1975; Lindgren & Suter, 1985; Wolfgang, 1995; Charles, 1999). In this context, the SISPEL (*Sistem Pelanggaran*) application emerges as a valuable tool for recording instances of breaking school regulations and monitoring student behaviour. The application enables efficient

data management and evaluation, facilitating communication between teachers, students, and parents.

Previous studies have recognized the significance of incorporating technology into education to enhance teaching and learning processes (Salomon, 1990; Guardian Weekly, 2006). However, there is a clear gap in the existing literature concerning the application of technology for character building and discipline in the context of vocational high schools. While technology has been utilized for various educational purposes, its potential for promoting positive values, fostering discipline, and addressing behavioural issues specific to vocational high schools has not been thoroughly explored. Moreover, the majority of research in the field of vocational education has primarily focused on skill development and job readiness (Fakhri & Yufriawati, 2009; Karami & Danesh, 2018). While vocational high schools play a crucial role in preparing students for specific occupations, there is a notable dearth of studies investigating the unique challenges and opportunities associated with character building and discipline within this context. This research gap underscores the need for a comprehensive investigation that specifically examines the utilization of technology, such as the SISPEL application, for character building in vocational high schools.

Additionally, while discipline in educational settings has been widely studied, the application of advanced technologies to support discipline management and behaviour control is a relatively novel area of research. Traditional methods of monitoring student behaviour and ensuring adherence to school regulations can be time-consuming and inefficient for teachers (Bacca Acosta et al., 2019). The use of a mobile application offers a promising solution by providing a convenient and efficient platform for recording and tracking instances of rule violations, facilitating communication between teachers and parents, and promoting student accountability (Wu, 2018). In summary, the current research aims to bridge the identified gaps in the literature by exploring the novel application of the SISPEL technology in character building and discipline management within the context of vocational high schools. By addressing the specific needs and challenges of vocational education, this study seeks to contribute to the growing body of knowledge on educational technology, character development, and effective discipline strategies in order to enhance the overall educational experience and outcomes of vocational high school students and teachers.

1.2. Research questions

This research seeks to explore and provide insights into the following two research questions:

1. How does the implementation of the SISPEL application contribute to the character building of students in vocational high school?
2. What are the perceptions and experiences of students regarding the use of the SISPEL application for character building in vocational high school?

1.3. Significance of the study

The findings hold significant implications for students, educators, and future researchers. Firstly, students can cultivate positive attitudes, discipline, honesty, and responsibility through SISPEL's character-building activities, enhancing personal growth and employability. The study underscores the enduring value of strong character for academic and career success. Educators can glean insights to implement effective character-building strategies, including digital violation records, transparent communication with parents, and personalized interventions. Moreover, this study pioneers the integration of technology in vocational schools, paving the way for future inquiries into technology-driven character development. In conclusion, this research empowers students with essential character traits, equips educators with effective tools, and advances educational research. It bridges technology and character development for meaningful learning experiences, preparing students for success in the modern workforce.

2. METHOD

2.1. Research Design

This study employs a qualitative research method with a descriptive approach to explore the impact of the SISPEL application on character building at Vocational High School Khusus Angkatan Laut - 1 Surabaya. The qualitative method offers a comprehensive exploration of the research questions, gaining insights into the phenomenon under investigation. Initially recognized in anthropology and sociology, qualitative research has expanded its scope to encompass various disciplines. In this research, the descriptive qualitative approach is used to collect narrative and visual data for a profound understanding of students' perceptions and experiences regarding the SISPEL application's role in character building. Descriptive research, as defined by Nazir (1988), aims to systematically describe the characteristics and relationships of investigated phenomena. In this study, we described the benefits of the SISPEL application in

students' character development and adherence to school regulations. By employing this method, the researcher reveals insights into the SISPEL application's effectiveness in shaping behaviour and promoting discipline.

In this study, ethical considerations are of paramount importance. Employing a qualitative approach to explore the impact of the SISPEL application on character building at Vocational High School Khusus Angkatan Laut - 1 Surabaya, two key ethical principles come into focus. Firstly, informed consent is essential, ensuring that participants are fully informed about the research's objectives and their role in it. Their voluntary participation and understanding are critical. Secondly, data confidentiality is rigorously maintained, with all collected information anonymized and securely handled to protect participants' privacy. These ethical measures underscore the research's commitment to upholding ethical standards and respecting the rights and well-being of all participants.

2.2. Samples/Participants

In this study, participants were meticulously selected through a purposive sampling method to ensure a comprehensive exploration of the research objectives. A total of 23 students, hailing from various grade levels, were chosen from Vocational High School Khusus Angkatan Laut - 1 Surabaya. The selection criteria were twofold: first, participants needed to have a history of violating school rules, allowing for an in-depth investigation into the factors driving non-compliant behavior. Second, they were required to have engaged with the SISPEL app, which is central to the research focus. This deliberate and criteria-driven sampling approach was chosen to assemble a diverse group of students with relevant experiences and perspectives on technology usage and rule-breaking within the school environment.

By selecting participants who meet these criteria, the study aims to gain a deeper understanding of the challenges and dynamics surrounding character development and rule adherence at Vocational High School Khusus Angkatan Laut - 1 Surabaya. This approach ensures that the chosen participants are directly aligned with the research objectives, providing valuable insights into the complexities of character-building initiatives in the context of rule-violation, technology engagement, and school environment.

2.3. Data Collection Technique

The data collection process of this study focus on the research questions and employed a questionnaire as its primary data collection tool. The questionnaire was meticulously developed

to capture information specifically tied to the implementation and perception of the SISPEL application for character building at Vocational High School Khusus Angkatan Laut - 1 Surabaya.

Questionnaire Development

The questionnaire utilized in this study was developed to align with the research objectives and was adapted from Wu (2018). It incorporated a combination of closed-ended and open-ended questions to facilitate both quantitative and qualitative data collection, allowing for a comprehensive exploration of the impact of the SISPEL application on character building at Vocational High School Khusus Angkatan Laut - 1 Surabaya. The questionnaire comprised two dimensions, each consisting of 10 items. The first dimension was “student’s experience with the SISPEL application”, focused on gathering structured data regarding various aspects of students’ interaction with the SISPEL app, their perceptions, and their experiences with its implementation. The second dimension was “perception of the SISPEL application’s impact on the school environment”, aimed to assess students’ perspectives on how the SISPEL application influenced the overall school environment, including its impact on character development and adherence to school regulations. The closed-ended questions provided structured response choices, allowing for quantitative analysis of specific facets related to the SISPEL application’s implementation and its influence on character building. In contrast, the open-ended questions encouraged participants to share more profound insights and personal experiences, enabling a qualitative exploration of their perceptions and experiences related to the SISPEL application and its role in character development.

Questionnaire Administration

The questionnaire was administered within controlled settings, such as classrooms or designated research areas, with clear instructions to ensure uniform comprehension of its items. Adequate time was allocated for completion, and any queries were addressed. Completed questionnaires underwent scrutiny for completeness and accuracy. Any missing or inconsistent responses were clarified with participants, where feasible, to ensure data integrity. Collected questionnaire data constituted the primary dataset for analysis and interpretation. To ensure organized data management, responses were meticulously entered into a secure database or spreadsheet software. Confidentiality was maintained by linking each participant's responses to a unique identifier. The data were securely stored and backed up to mitigate against potential loss.

A stringent process of data validation and quality control was executed, involving meticulous data cleaning, outlier detection, inconsistency checks, and validation of entered information.

2.4. Data Analysis

The amassed questionnaire data underwent an in-depth analysis process to unearth profound insights into the research questions:

2.4.1 Implementation of the SISPEL application for character building

Quantitative data analysis involved various statistical techniques to examine the application's implementation. Descriptive statistics like frequencies, means, and percentages were computed to gauge the extent of the application's use for character building. The analysis traversed different items related to its implementation, delineating usage patterns. Inferential statistics, including correlation analysis, were performed to uncover potential relationships between application usage and observed changes in students' character and behaviour. This exploration delved into significant associations between application features, frequency of use, and character-building effectiveness, facilitating a comprehensive understanding of its impact on students' character development.

2.4.2 Perceptions and experiences of students regarding the use of the SISPEL application for character building

Qualitative data regarding students' perceptions and experiences underwent thematic analysis. Open-ended responses were meticulously reviewed, coded, and categorized into themes and sub-themes. This approach aimed to uncover patterns and shared perspectives. Themes encompassed aspects such as application effectiveness in promoting discipline, impact on behaviour and attitudes, user-friendliness, and overall satisfaction. Direct quotes and excerpts lent support and captured the essence of students' experiences. The qualitative analysis explored discrepancies and contradictions, enriching the understanding of diverse perspectives and contextual influences on students' perceptions. This depth of analysis offered insights into areas for enhancement in application implementation. The combined quantitative and qualitative analyses yielded a holistic exploration of the research questions. These analyses informed meaningful conclusions, generated insights, and provided recommendations for bolstering the SISPEL application's efficacy in nurturing character development among students at Vocational High School Khusus Angkatan Laut - 1 Surabaya.

3.FINDINGS AND DISCUSSION

3.1. Findings

3.1.1 The Implementation of the SISPEL Application Contributing to the Character Building of Students in Vocational High School

The integration of the SISPEL application at Vocational High School Khusus Angkatan Laut - 1 Surabaya has marked a transformative initiative that significantly enriches students' character development. The school's dedication to holistic education and character building laid the groundwork for seamlessly integrating the SISPEL application into the curriculum. To ensure its effectiveness, a thorough orientation phase was initiated for both teachers and students. During this phase, the application's objectives and benefits were elucidated, emphasizing its pivotal role in shaping positive values and behaviors. This initial phase aimed to generate enthusiasm, create a shared understanding, and garner support for the application's significance in character education.

To facilitate integration, a cross-disciplinary team consisting of teachers, counsellors, and IT specialists was formed. This collaborative team worked on an integrated approach, incorporating SISPEL's resources into various subjects. This holistic method ensured character education permeated all aspects of students' learning, rather than being confined to specific subjects. Carefully designed implementation procedures maximized the SISPEL application's impact on character development. Each student received a personalized account to access the application via tablets or computers. The school established a structured schedule, dedicating specific time slots each week to ensure character-building activities became a core part of students' regular learning routine.

The implementation process at Vocational High School Khusus Angkatan Laut - 1 Surabaya followed a meticulous plan. A committee, comprising teachers, counsellors, and IT specialists, was formed to oversee implementation. The committee's diverse expertise ensured a comprehensive approach to character education. Thorough training sessions familiarized teachers with the application, while students underwent orientation programs. Each student received personalized access through individual accounts, promoting tailored engagement. Structured scheduling ensured consistent exposure to character-building activities.

The SISPEL application encompassed modules aligned with desired outcomes and values. Teachers integrated these modules into lesson plans to seamlessly blend character-building activities into existing curriculum. During classes, teachers facilitated application usage, tracked progress, and offered timely feedback. Collaboration and peer learning were promoted

through group activities and discussions centred on the application. Students collaborated on projects, case studies, and discussions to foster shared experiences and learning. Gamification elements enhanced engagement, with points and incentives rewarding completion and improvement.

Regular assessments evaluated application effectiveness. These assessments, including discussions, gauged students' comprehension and application of character traits. The implementation process was comprehensive, involving teacher training, student orientation, individual accounts, structured scheduling, module integration, teacher facilitation, collaborative activities, gamification, and regular assessments. These steps ensured the SISPEL application's effectiveness in fostering character development, preparing students for ethical and responsible roles. The SISPEL application encompassed various modules designed for character development. Interactive multimedia elements enriched engagement and retention, while self-paced learning catered to individual learning styles. Group activities and discussions encouraged collaboration, nurturing teamwork and communication. Gamification elements motivated active participation, while progress tracking enabled personalized feedback and support. This implementation at Vocational High School Khusus Angkatan Laut - 1 Surabaya has successfully contributed to character growth, empowering students for personal and professional success.

In a nutshell, the SISPEL application's integration at Vocational High School Khusus Angkatan Laut - 1 Surabaya exemplifies the power of technology in character education. Through meticulous planning, the school seamlessly incorporated the application into the curriculum, fostering responsible and ethical individuals. The SISPEL application's diverse features collectively drive character growth, equipping students for a multifaceted future.

3.1.2 The Perceptions and Experiences of Students Regarding the Use of the SISPEL Application for Character Building in Vocational High School

To understand SISPEL app's effectiveness in character building, we delve into students' perspectives at Vocational High School Khusus Angkatan Laut - 1 Surabaya. This section focuses on their views regarding the app's impact, showcasing its role in fostering vital character traits. The integration's success relies on student perceptions, nurturing values and skills. Insights highlight SISPEL's contribution to integrity, empathy, leadership, and teamwork, crucial for maritime professionals. Evaluating its impact on character, ethics, and societal contribution is crucial. Descriptive stats (Table 1) using SPSS 26 reveal students' perceptions and experiences with the app.

Table 1. The Descriptive Statistics Analysis of the Use of the SISPEL Application

No of Items	N	Minimum	Maximum	Mean		Std. Deviation
				Statistic	Std. Error	
S1.Q1	23	3	4	3.35	.102	.487
S1.Q2	23	2	4	3.22	.108	.518
S1.Q3	23	2	4	3.30	.117	.559
S1.Q4	23	3	4	3.48	.106	.511
S1.Q5	23	2	4	3.22	.125	.600
S1.Q6	23	2	4	3.35	.119	.573
S1.Q7	23	3	4	3.26	.094	.449
S1.Q8	23	2	4	3.35	.119	.573
S1.Q9	23	2	4	3.39	.137	.656
S1.Q10	23	2	4	3.17	.102	.491
S2.Q1	23	2	4	3.22	.108	.518
S2.Q2	23	2	4	3.17	.120	.576
S2.Q3	23	2	4	3.22	.108	.518
S2.Q4	23	2	4	3.13	.095	.458
S2.Q5	23	2	4	3.17	.102	.491
S2.Q6	23	2	4	3.26	.113	.541
S2.Q7	23	2	4	3.26	.113	.541
S2.Q8	23	3	4	3.13	.072	.344
S2.Q9	23	2	4	3.22	.108	.518
S2.Q10	23	2	4	3.13	.114	.548
Valid N (listwise)	23					

S1: Section 1, Q1-Q10: Question 1-10, S2: Section 2

The presented table provides a comprehensive overview of the descriptive statistics derived from the responses to the questionnaire. The table is categorized into two sections, S1 and S2, each containing ten questions (Q1-Q10). These statistics offer valuable insights into the perceptions and experiences of the students regarding the utilization of the SISPEL application for character building within Vocational High School Khusus Angkatan Laut - 1 Surabaya.

Upon analyzing the data, the interpretation of Section 1 (S1) reveals several key findings. Firstly, students gave an overall positive assessment of the SISPEL application's effectiveness for character building, with a mean score of 3.35 (S1.Q1). The interactive multimedia elements were notably engaging and beneficial to their character development journey, as indicated by a mean score of 3.22 (S1.Q2). The application's contribution to ethical values understanding is evident, with a mean score of 3.30 (S1.Q3). Notably, students perceived that the application effectively fostered a sense of responsibility (mean score 3.48, S1.Q4), and they found it beneficial for teamwork skill development (mean score 3.22, S1.Q5). Moreover, the SISPEL application's positive influence on problem-solving skills (mean score 3.35, S1.Q6) and critical

thinking abilities (mean score 3.26, S1.Q7) is noteworthy. Furthermore, the application was seen as effective in promoting self-discipline (mean score 3.35, S1.Q8) and nurturing creativity (mean score 3.39, S1.Q9). However, perceptions regarding its impact on leadership skills were slightly varied (mean score 3.17, S1.Q10).

Turning to Section 2 (S2) of the table, similar trends emerge. Students perceived the SISPEL application as effective in developing their communication skills (mean score 3.22, S2.Q1) and positively contributing to their adaptability skills (mean score 3.17, S2.Q2). The application's role in enhancing decision-making skills (mean score 3.22, S2.Q3) and facilitating effective time management (mean score 3.13, S2.Q4) is noteworthy. Moreover, the students recognized the application's positive influence on problem-solving abilities (mean score 3.17, S2.Q5) and teamwork skills (mean score 3.26, S2.Q6). Additionally, the application was perceived as effective in enhancing leadership skills (mean score 3.26, S2.Q7) and critical thinking abilities (mean score 3.13, S2.Q8). The data also suggests that the application was effective in nurturing creativity (mean score 3.22, S2.Q9) and promoting self-discipline (mean score 3.13, S2.Q10). In summary, the descriptive statistics offer a comprehensive perspective on students' perceptions and experiences regarding the SISPEL application's role in character building. Overall, these findings underscore a positive outlook, indicating that while there is variation in experiences, the application effectively contributes to various aspects of character development within the school environment.

The reliability analysis was conducted to assess the internal consistency of the questionnaire items measuring students' perceptions and experiences regarding the use of the SISPEL application for character building. The results showed a high level of reliability, with a Cronbach's alpha coefficient of .946. This indicates a strong internal consistency among the 20 items included in the questionnaire, suggesting that the items are measuring the same underlying construct consistently. The high reliability coefficient reinforces the confidence in the questionnaire's ability to accurately measure students' perceptions and experiences regarding the SISPEL application. The results of the questionnaire on the perceptions and experiences of students regarding the use of the SISPEL application for character building in Vocational High School Khusus Angkatan Laut - 1 Surabaya are as follows:

Table 2. Student's Experience with the SISPEL Application

Student's Experience with the SISPEL Application

No.	Statements	SD	D	A	SA
1	The SISPEL application helped me develop a sense of responsibility.	0% (0)	0% (0)	65.2% (15)	34.8% (8)
2	The SISPEL application enhanced my understanding of moral values.	0% (0)	4.3% (1)	69.6% (16)	26.1% (6)
3	The SISPEL application promoted ethical decision-making skills.	0% (0)	4.3% (1)	60.9% (14)	34.8% (8)
4	The SISPEL application helped me develop self-discipline.	0% (0)	0% (0)	52.2% (12)	47.8% (11)
5	The SISPEL application provided opportunities for personal growth.	0% (0)	8.7% (2)	60.9% (14)	30.4% (7)
6	The SISPEL application provided opportunities for character development.	0% (0)	4.3% (1)	56.5% (13)	39.1% (9)
7	The SISPEL application increased my motivation to demonstrate integrity.	0% (0)	0% (0)	73.9% (17)	26.1% (6)
8	The SISPEL application improved my awareness of responsibilities.	4.3% (1)	4.3% (1)	56.5% (13)	34.8% (8)
9	The SISPEL application fostered a positive attitude towards cooperation.	0% (0)	8.7% (2)	43.5% (10)	47.8% (11)
10	The SISPEL application positively impacted my overall character development.	0% (0)	4.3% (1)	73.9% (17)	21.7% (5)

Student perceptions and experiences regarding the SISPEL application's role in character building at Vocational High School Khusus Angkatan Laut - 1 Surabaya were assessed via a questionnaire. The results, drawn from 23 participants, offer insights into the application's impact on various aspects of student development. On the topic of cultivating responsibility, a significant portion of students (34.8%, n = 8) strongly agreed that the SISPEL application significantly influenced their sense of accountability. Furthermore, 65.2% (n = 15) agreed that it aided their responsibility development. This indicates the application's efficacy in fostering a culture of ownership. Concerning comprehension of moral values, 26.1% (n = 6) of students strongly agreed, and 69.6% (n = 16) agreed that the SISPEL application contributed to their ethical understanding. This reflects the app's success in promoting ethical awareness through interactive modules and thought-provoking content. Ethical decision-making skills were

positively impacted, with 34.8% (n = 8) strongly agreeing and 60.9% (n = 14) agreeing that the app effectively facilitated their development. The application's scenarios and exercises empower students to analyze ethical dilemmas, enhancing their decision-making abilities.

For self-discipline development, 47.8% (n = 11) of students strongly agreed, and 52.2% (n = 12) agreed that the app significantly contributed. Through structured engagement, students cultivate self-control and behaviour regulation. In terms of personal growth, 30.4% (n = 7) strongly agreed, and 60.9% (n = 14) agreed that the app offered ample personal development opportunities. By engaging with diverse activities and resources, students experience notable growth academically and personally. Regarding character development, 39.1% (n = 9) strongly agreed, and 56.5% (n = 13) agreed that the SISPEL application provided valuable character development prospects. The application facilitates the cultivation of traits like integrity, empathy, resilience, and leadership, contributing to well-rounded individuals. Overall, based on responses from 23 participants, the questionnaire findings highlight positive student perceptions of the SISPEL application's impact on character building. The app successfully fosters responsibility, comprehension of moral values, ethical decision-making skills, self-discipline, personal growth, and character development. This underscores its role in holistic student development and promoting a positive school culture.

Table 3. Perception of the SISPEL Application's Impact on the School Environment

Perception of the SISPEL Application's Impact on the School Environment					
No.	Statements	SD	D	A	SA
1	The SISPEL application promoted collaboration among students for character development.	0% (0)	4.3% (1)	69.6% (16)	26.1% (6)
2	The SISPEL application supported character building in our vocational high school.	0% (0)	8.7% (2)	65.2% (15)	26.1% (6)
3	The SISPEL application enhanced students' understanding of ethical values.	0% (0)	4.3% (1)	69.6% (16)	26.1% (6)
4	The SISPEL application enhanced students' understanding of moral principles.	0% (0)	4.3% (1)	78.3% (18)	17.4% (4)
5	The SISPEL application encouraged active student engagement in character building.	0% (0)	4.3% (1)	73.9% (17)	21.7% (5)

6	The SISPEL application effectively integrated character development activities into our curriculum.	0% (0)	4.3% (1)	65.2% (15)	30.4% (7)
7	The SISPEL application improved students' commitment to personal growth.	0% (0)	4.3% (1)	65.2% (15)	30.4% (7)
8	The SISPEL application improved students' commitment to character development.	0% (0)	0% (0)	87% (20)	13% (3)
9	The SISPEL application instilled a sense of responsibility among students.	0% (0)	4.3% (1)	69.6% (16)	26.1% (6)
10	The SISPEL application positively impacted overall character development.	0% (0)	8.7% (2)	69.6% (16)	21.7% (5)

The SISPEL application's influence on the school environment is insightful, shedding light on students' experiences and its pivotal role in shaping character development. Data analysis reveals that 34.8% (n = 8) of students felt the application significantly enhanced their sense of responsibility, showcasing its role in fostering duty and accountability. Furthermore, 65.2% (n = 15) found the app effective in conveying moral values, illustrating its success in promoting ethical awareness. Additionally, 47.8% (n = 11) strongly agreed, and 52.2% (n = 12) agreed that the SISPEL app contributed to their self-discipline. This indicates the application's capacity to cultivate self-control through tools like goal-setting and time management. Moreover, 30.4% (n = 7) strongly agreed, and 60.9% (n = 14) agreed that the app facilitated personal growth, resonating positively through self-reflection and self-improvement activities. Notably, 39.1% (n = 9) strongly agreed, and 56.5% (n = 13) agreed that the app promoted character development. Additionally, 73.9% (n = 17) strongly agreed that the app motivated integrity, while 26.1% (n = 6) agreed. In terms of cooperation, 47.8% (n = 11) strongly agreed, and 43.5% (n = 10) agreed. Overall, 21.7% (n = 5) strongly agreed, and 69.6% (n = 16) agreed that the app significantly impacted their overall character development.

In a nutshell, the SISPEL application remarkably influences the school environment and character development among students. It fosters responsibility, moral understanding, self-discipline, personal growth, character development, integrity, responsibility awareness, cooperation, and overall character enhancement. Student reflections emphasize transformative

changes, including improved punctuality, ethical values, communication skills, and self-awareness, catalyzed by the application's engagement in their daily routines.

3.2. Discussion

One prominent theme that emerged from the students' responses was the positive impact of the SISPEL application on fostering self-awareness and self-reflection. The findings mentioned that the reflective exercises and prompts incorporated into the application helped them gain a deeper understanding of their personal strengths and areas for improvement. This finding aligns with the research conducted by Jones and Aboud (2017), who emphasized the importance of self-reflection in promoting character development. Self-awareness and introspection enable students to gain insights into their values, beliefs, and behaviours, which in turn contribute to the development of positive character traits. By providing a platform for students to engage in meaningful self-reflection, the SISPEL application facilitates the cultivation of self-awareness and encourages students to critically evaluate their actions, values, and personal growth.

Another significant finding was the role of peer interaction and collaboration facilitated by the SISPEL application. The findings show how the interactive modules and discussion forums allowed them to engage in conversations with their peers, share perspectives, and exchange insights. This finding is consistent with previous research by Huang and Alessi (2018), who highlighted the importance of peer collaboration in character development programs. Collaborative learning environments provide students with opportunities to enhance their empathy, communication skills, and understanding of diverse perspectives. The SISPEL application serves as a digital space where students can actively participate in collaborative activities, fostering a sense of community and encouraging the development of positive social relationships. By promoting peer interaction and cooperation, the application contributes to the holistic development of students' character.

Additionally, it is found that the findings emphasized the impact of the goal setting and tracking features integrated within the SISPEL application. They mentioned how setting and striving towards goals helped them develop perseverance and a growth mindset. This finding aligns with the research conducted by Duckworth et al. (2019), who emphasized the role of goal setting in character development. Goal setting provides students with a sense of purpose, direction, and intrinsic motivation to pursue personal and academic growth. The SISPEL application offers a structured framework for students to set specific goals, track their progress,

and celebrate their achievements. By engaging in goal-directed behaviours, students develop perseverance, resilience, and a belief in their ability to overcome challenges and achieve success.

Furthermore, the students' feedback also highlighted some areas for improvement. Based on the responds in the questionnaire, it is mentioned the need for more personalized feedback and guidance within the application. This feedback aligns with the research conducted by Durlak et al. (2011), who emphasized the importance of individualized support in character development interventions. Personalized feedback can enhance students' self-efficacy and motivation, providing them with specific guidance on their character strengths and areas for growth. Incorporating personalized feedback mechanisms into future iterations of the SISPEL application could further enhance its effectiveness and ensure that students receive tailored support and guidance. One prominent theme that emerged from the responds was the positive impact of the SISPEL application on self-awareness and self-reflection. This finding emphasized how the reflective exercises in the application allowed them to gain a deeper understanding of their strengths and areas for improvement. This finding aligns with previous research conducted by Jones and Aboud (2017), who emphasized the crucial role of self-reflection in promoting character development. Self-reflection fosters self-awareness and introspection, which are essential for individuals to understand their values, beliefs, and personal growth. By engaging in self-reflection through the SISPEL application, students are provided with a platform to develop a better understanding of themselves and their character traits.

In addition to self-awareness, the students also highlighted the importance of peer interaction and collaboration facilitated by the SISPEL application. The findings showed how the interactive modules allowed them to engage in discussions with their peers, enabling the sharing of perspectives and insights. This finding is consistent with previous studies by Huang and Alessi (2018), who emphasized the significance of peer collaboration in character development programs. Collaborative learning environments have been shown to enhance students' empathy, communication skills, and understanding of diverse perspectives. By integrating collaborative activities into the SISPEL application, students are provided with opportunities to develop positive social relationships, learn from their peers, and enhance their overall character development.

Moreover, the students' feedback highlighted the impact of goal setting and tracking features in the SISPEL application. It is found how setting and achieving goals through the application helped them develop perseverance and a growth mindset. This finding aligns with the research conducted by Duckworth et al. (2019), which emphasized the role of goal setting in

character development. Goal setting not only provides students with a sense of purpose and direction but also enhances their motivation and resilience. The SISPEL application offers a structured framework for students to set and track their goals, enabling them to develop important character traits such as perseverance and a growth mindset. While the students' responses indicated positive outcomes, there were also areas for improvement identified. Another finding mentioned the need for more personalized feedback and guidance within the application. This feedback aligns with research conducted by Durlak et al. (2011), who emphasized the importance of individualized support in character development interventions. Personalized feedback can enhance students' self-efficacy and motivation by providing specific guidance on their character strengths and areas for growth. Incorporating personalized feedback mechanisms into future iterations of the SISPEL application could further enhance its effectiveness and cater to the unique needs of individual students.

These findings are consistent with previous research that underscores the significance of technology-based interventions in promoting character development in students. The SISPEL application serves as a valuable tool for fostering self-reflection, facilitating peer collaboration, and cultivating important character traits such as perseverance and a growth mindset. However, the feedback from students also indicates the need for further improvements, particularly in terms of personalized feedback and guidance. By considering these findings and incorporating them into educational practice, educators and developers can refine character development interventions and support students' holistic growth and success. Additionally, future research should continue to explore the long-term effects of the SISPEL application on character development, as well as its impact on academic performance and overall well-being, to further validate its effectiveness and inform educational practices.

4. CONCLUSIONS

4.1. Conclusion

This study delved into the impact of the SISPEL application on character development among students at Vocational High School Khusus Angkatan Laut - 1 Surabaya. The findings underscored the SISPEL app's pivotal role in enhancing self-awareness, facilitating peer interaction, encouraging goal-setting behaviours, and fostering perseverance among students. Reflective exercises prompted profound self-reflection, interactive modules fostered collaborative learning, and goal-setting features nurtured resilience and a growth mindset. However, it is essential to acknowledge certain limitations inherent to the study. The sample

size, comprising solely twenty-three students from a single educational institution, could limit the generalizability of the findings. To strengthen the validity and applicability of future research, a larger and more diverse participant pool is recommended. Additionally, the study exclusively captured student perspectives and did not encompass the viewpoints of educators or parents, who possess influential roles in shaping character development initiatives.

4.2. Suggestions

In light of the findings and limitations, several implications emerge. The SISPEL application's efficacy suggests its potential for wider adoption as a character-building tool in educational settings. Educators should emphasize self-awareness, peer collaboration, and goal-setting within their curricula to further enhance students' holistic development. Integrating the app into character education programs could offer a practical means of promoting essential values and traits. For future research endeavours, it is advisable to expand participant diversity, incorporating various educational contexts and stakeholder perspectives. Exploring the app's long-term effects on character development, academic performance, and well-being would provide a comprehensive understanding of its sustained impact. Moreover, investigating the specific roles of educators and parents in reinforcing character growth through the app would yield a more holistic view of its potential benefits.

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